

7. REFERENCES

1. Dale HH, Laidlaw PP, The physiological action of β -iminazolyethylamine, *J Physiol*, (Lond.), **41**(5), 1910, 318-344.
2. Best CH, Dale HH, Dudley HW, Thorpe WV, The nature of the vaso-dilator constituents of certain tissue extracts, *J Physiol*, (Lond.), **62**(4), 1927, 397-417.
3. Ash AS, Schild HO, Receptors mediating some actions of histamine, *J Pharmacol Chemother*, **27**(2), 1966, 427-439.
4. Black JW, Duncan WA, Ganelline CR, Parsons, Definition and antagonism of histamine H₂ receptors, *Nature*, **236**(5347), 1972, 385-390.
5. Arrang JM, Garbarg M, Lancelot JC, Highly potent and selective ligands for histamine H₃ receptors, *Nature*, **327**(6118), 1987, 117-123.
6. Hough LB, Genomics Meets histamine Receptors; New subtypes, New Receptors, *Mol Pharmacol*, **59**, 2001, 415-419.
7. Burkhalter A, Frick In OL, Katzung BG (Editor), Basic and Clinical Pharmacology, 2nd ed., Lange, Los Altos, CA. 1984, 189-192.

8. Berdy GJ, Abelson MB, George MA, Smith LM, Giovanoni RL, Allergic conjunctivitis; a survey of new antihistamines, ***J Ocul Pharmacol***, **7**(4), 1991, 313-324.
9. Dechant KL, Goa KL, Levocabstine. A review of its pharmacological properties and therapeutic potential as a topical antihistamine in allergic rhinitis and conjunctivitis, ***Drugs***, **41**(2), 1991, 202-224.
10. Grant SM, Goa KL, Fotin A, Sokin EM, Ketotefene. A review of its pharmacodynamic and pharmacokinetic properties and therapeutic use in asthma and allergic disorders, ***Drugs***, **40**(3), 1990, 412-418.
11. Yanni JM, Stephens DJ, Parnell DW, Spellman JM, Preclinical efficacy of emedastine, a potent, selective histamine H₁-antagonist for topical ocular use, ***J Ocul Pharmacol***, **10**(4), 1994, 665-75.
12. Abelson MB, Udell IJ, Weston HJ, Conjunctival Eosinophils in Compound 48/80 Rabbit model, ***Arch Ophthalmol***, **101**, 1983, 631-633.
13. West WR, July WR, Synthesis of 1,3,4-triazolo quinazolin-4-ones, ***Eur Pat***, **34**, 1981, 529-532; ***Chem Abstr***, **96**, 1982, 20114.
14. Lemura R, Hori M, Saito T, Ohtaka H, Bioisosteric transformation of H₁-antihistaminic benzimidazole derivatives, ***Chem Pharm Bull***, **37**(10), 1989, 2723-2726.

15. Fujio, Kiyotaka I, Hiroshi T, Kazushi F, Hajime K, Substituted quinazolines, ***Jpn Kokai Tokkyo Koho Jp***, **53**, 2000, 653-654 (Cl.C07D239/95), 22 (Feb 2000), Appl . 1998/ 225, 749, 10 (Aug 1998), 13pp, ***Chem Abstr***, 134, 2001, 56843.
16. Teruharu T, Fujio A, Koyotaka I, Hiroshi T, Shigemi N, Hiroshi O, Takamasa W, Kazushi F, Hajime K, Synthesis of 2-amino-5,6,7,8-substituted quinazolines, ***Jpn Kokai Tokyo Koho Jp***, **53**, 2000, 654-657 (Cl.C07D239/95), 22, Appl.1998/225, 750, 10 (Aug 1998), 20pp, ***Chem Abstr***, **135**, 2002, 53962.
17. Kumar Raju VS, Bhagavan Raju M, Rajesh, Bahekar H, Rajan KS, Raghu Ram Rao A, New antihistaminic agents-5, synthesis and H₁-antihistaminic evaluation of 3-(*N,N*-dialkylamino)alkyl derivatives of 2-phenyl-3,4-dihydro quinazolin-4(3*H*)-ones, ***Indian Drugs***, **36**(12), 1999, 759-761.
18. Asmita Gajbhiye, Malla Reddy V, Achaiah G, Synthesis and pharmacological evaluation of 6-Substituted chromin-(2',3',6',7') (1,3,4)-thiadiazepin-(2,3-b)-6'-substituted amino quinazolin-4(3*H*)-ones, ***Indian J Heterocycl Chem***, **16**, 2007, 235-238.
19. Jitsuoka M, Tsukahara D, Ito S, Tanaka T, Takenaga N, Tokita S, Sato N, Synthesis and evaluation of a spiro-

- isobenzofuranone class of histamine H₃ receptor inverse agonists, ***Bioorg Med Chem***, **18**(18), 2008, 5101-5106.
20. Mizutani T, Nagase T, Ito S, Miyamoto Y, Tanaka T, Takenaga N, Tokita S, Sato N, Development of novel 2-[4-(aminoalkoxy)phenyl]-4(3*H*)-quinazolinone derivatives as potent and selective histamine H₃ receptor inverse agonists, ***Bioorg Med Chem***, **18**, 2008, 6041-6045.
21. Alagarsamy V, Kavitha K, Rupeshkumar M, Solomon VR, Kumar J, Kumar DS, Sharma HK, Synthesis and pharmacological investigation of novel 4-(3-ethylphenyl)-1-substituted-4*H*-[1,2,4]triazolo[4,3-*a*]quinazolin-5-ones as a new class of H₁ antihistaminic agents, ***Acta Pharm***, **59**(1), 2009, 97-106.
22. Bhagawan Raju M, Raja sekhar K. K, Prasanthi G, Synthesis and H₁-antihistaminic activity of some 3-[(*N,N*-Dialkylamino)alkyl]-6-halo-2-thio-4(3*H*)-quinazolinones, ***J Pharmacy Res***, **3**(11), 2010, 2628-2630.
23. Kotto K, Koeshmstedt H, Konke D, Wahlam H, Heder G, Synthesis and antihypertensive activity of 2-substituted quinazolines-4(3*H*)-ones, ***German Patent***, 225, 1965, 31. ***Chem Abstr***, **90**, 1968, 30-33.
24. Timothy H, Hans J. Hess, Cronin, Alexander Scriabine, Antihypertensive activity of 2-amino-4(3*H*)-quinazolines, ***J Med Chem***, **11**, 1968, 130-136.

25. Wamhoff H, Georg Hendrikx, Heterocyclische β -Enaminoester, Das Cycloadditions-Ringerweiterungsprinzip beim 4,5-Dihydropyrrol: 6,7-dihydro-1*H*-azepine, Pyrimido[4,5-*b*]azepine and 1,2,4-Triazolo[5',1': 2,3]pyrimido[4,5-*b*]azepin, **Chem Ber**, **118**(3), 1985, 863-872.
26. Chien LK, Ming H, Synthesis of 1,3,4-triazolo quinazolines, **Arch Pharm**, **31**(9), 1986, 188-191.
27. Chien L, Shang H, Hu W, Kuang M, Synthesis of 1,2,4-triazolo quinazolines, **Farmaco**, **42**, 1987, 155-157.
28. Ram VS, Srimal, Kushwaha S, Mishra L, Synthesis of [1,2,4]-Triazolo quinazolinones and related compounds as antihypertensive agents, **J Prakt Chem**, **32**(5), 1990, 629-639.
29. Zhohghna Y, Synthesis and antihypertensive activity of 1,7,8-trisubstituted triazolo quinazolin-4(3*H*)-ones, **Zaghi**, **45**(1), 1993, 53-57.
30. Chern JW, Tao PL, Yen MH, Lu GY, Shiau CY, Lai YJ, Chien SL, Chan CH, Studies on quinazolines. 2,3-dihydroimidazo[1,2-*c*]quinazoline derivatives: a novel class of potent and selective α_1 -adrenoceptor antagonists and antihypertensive agents, **J Med Chem**, **36**(15), 1993, 2196-207.

31. Rathod IS, Patel MB, Shirsath VS, Jain KS, Synthesis and analgesic activity of some 3-substituted-3*H*-[1,2,4]triazino[6,1-*b*]quinazolines-4,10-diones, ***Indian J Chem***, **34(B)**, 1995, 617-623.
32. Harukazu F, Akiko I, Shinjiro N, Saki K, Motoo S, Yoshinoby K, Synthesis of quinazolin-diones, ***Pct Int Appl Wo***, **97** 11, 1997, 941, ***Chem Abstr***, **131**, 1999, 34913-17.
33. Yang JM, Yuen TC, Chang CW, Jin JS, Yen MH, Chern JW, Electrical and mechanical effects of a novel antihypertensive quinazoline derivative, 3-[[4-(2-methoxyphenyl) piperazin-1-yl]methyl]-5-(methylthio)-2,3-dihydroimidazo [1,2-*c*]quinazoline, on guinea pig ventricular muscles, ***J Cardiovasc Pharmacol***, **30**(2), 1997, 229-34.
34. Rivero IA, Somanathan R, Hellberg LH, Synthesis of 3-dipeptidyl-2,4(1*H*,3*H*)-quinazolinediones as potential antihypertensive agents, ***Synth Commun***, **28**(11), 1998, 2077-86.
35. Chern JW, Tao PL, Wang KC, Gutcait A, Liu SW, Yen MH, Chien SL, Rong JK, Studies on quinazolines and 1,2,4-benzothiadiazine 1,1-dioxides, Synthesis and pharmacological evaluation of tricyclic fused quinazolines and 1,2,4-benzothiadiazine 1,1-dioxides as potential α_1 -

- adrenoceptor antagonists, **J Med Chem**, **41**(7), 1998, 3128-41.
36. Ashok Kumar, Ritu Tyagi, Ekta Bansal, Verma RS, Saxena KK, Srivastava VK, 2-methyl-3-[5-(substituted phenyl)- Δ^2 -triazoline]-4(3H)-quinazolines as potential cardiovascular agents, **Indian Drugs**, **35**(5), 1998, 261-265.
37. Alagarsamy V, Pathak US, Synthesis and antihypertensive activity of some novel 2-substituted[3,4] thiadiazolo[2,3-b]-6,7-disturbed thieno[3,2-e]pyrimidin 5(4H)-ones, **Acta Pharmaceutica Turcica**, XLI (1), 1999, 37-41.
38. Garcia JD, Somanathan R, Rivero IA, Aguirre G, Hellberg LH, Synthesis of deuterium-labeled antihypertensive 3-(4-phenyl-1'-piperazinyloxy)propyl-2,4-quinazolin-5(4H)-one, **Synth Commun**, **30**(15), 2000, 2707-11.
39. Pathak US, Alagarsamy V, Synthesis and pharmacological investigation of some 2-substituted[1,3,4]thiadiazolo[2,3-b]quinazolines-5(4H)-ones as antihypertensive agents, **Indian Drugs**, **37**(1), 2000, 51-55.
40. Alagarsamy V, Pathak U S, Synthesis and antihypertensive activity of novel 3-benzyl-2-substituted-3H-[1,2,4]triazolo[5,1-b]quinazolin-9-one, **Bioorg Med Chem**, **15**, 2007, 3457-3462.

41. El-Sabbagh OI, Shabaan MA, Kadry HH, Al-Din ES, New octahydro quinazoline derivatives: synthesis and hypotensive activity, *Eur J Med Chem*, **45**(11), 2010, 5390-96.
42. Robba M, Cugnon de sevrécourt, Lecomte JM, Thienopyrimidines. Reactions of the 4-hydrazinothieno [2,3-*d*]pyrimidines, *J Heterocycl Chem*, **12**(3), 1975, 525-527.
43. Boyle FT, Matusiak ZS, Hughes LR, Slater AM, Stephens TC, Smith MN, Brown M, Kimbell R, Jackman AL, Substituted-2-desamino-2-methyl-quinazolinones. A series of novel antitumour agents, *Adv Exp Med Biol*, **338**, 1993, 585-88.
44. Braña MF, Castellano JM, Keilhauer G, Machuca A, Martín Y, Redondo C, Schlick E, Walker N, Benzimidazo[1,2-*c*]quinazolines: a new class of antitumor compounds, *Anticancer Drugs*, **9**(6), 1994, 527-38.
45. Mang XY, Zhang XP, Chen XH, Yu AZ, Dai ZR, Hsueh Y, Design and anticancer activity of 2,4-diamino-6-substituted quinazolines, *Hsueh Pao*, **29**(4), 1994, 261-265.
46. Arnold, Lee D, Preparation of 4-heterocyclyl quinazolines as anticancer agents, *US Pat.* 5736 534, 1998 (cl.514-563; Co7D403/02), 7 Apr 1998, Wo Appl. 95/1B61, 27 (Jan 1995), 30pp, *Chem Abstr*, **128**(22), 1998, 270611, 590.

47. Jones TR, Webber SE, Varney MD, Reddy MR, Lewis KK, Kathardekar V, Mazdiyasni H, Deal J, Nguyen D, Welsh KM, Webber S, Johnston A, Matthews DA, Smith WW, Janson CA, Bacquet RJ, Howland EF, Booth CL, Herrmann SM, Ward RW, White J, Bartlett CA, Morse CA, Structure-based design of substituted diphenyl sulfones and sulfoxides as lipophilic inhibitors of *thymidylate synthase*, **J Med Chem**, **40**(5), 1997, 677-83.
48. Kazuo K, Fujiwara Yasunari, Isoe Toshiyuki, Preparation and antitumor, anti-atherosclerosis, anti-psoriasis, anti-diabetes and anti-arthritis activities of quinazolines and quinazolinones, **PCT Int Appl Wo** 0043366, 1999, (cl.Co7D215/22), **27 Jul App 1999/253**, 624; 7 Sep 1999, 208; **Chem Abstr**, **133**(10), 2000, 135235r, 691.
49. Fatihma M. Uckun, Xing-ping, Rama KN, Preparation of quinazolines as antitumor agents, PCT Int. Appl. Wo 0056720 (cl.Co7D239/94), 28 Sep 2000, **US Appl.** 357404, 20 Jul 1999, 77pp; **Chem Abstr**, **133**(19), 2000, 266866, 725.
50. Papoulis AT, Rosowsky A, Forsch RA, Queener SF, Synthesis and antiparasitic and antitumor activity of 2,4-diamino-6-(arylmethyl)-5,6,7,8-tetrahydroquinazoline analogues of piritrexim, **J Med Chem**, **42**(6), 1999, 1007-17.

51. Raffa D, Daidone G, Schillaci D, Maggio B, Plescia F, Synthesis of new 3-(3-phenyl-isoxazol-5-yl) or 3-[(3-phenyl-isoxazol-5-yl)-amino] substituted-4(3*H*)-quinazolinone derivatives with antineoplastic activity, **Pharmazie**, **54**(4), 1999, 251-254.
52. Hour MJ, Huang LJ, Kuo SC, Xia Y, Bastow K, Nakanishi Y, Hamel E, Lee KH, 6-alkylamino and 2,3-dihydro-3'-methoxy-2-phenyl-4-quinazolinones and related compounds: their synthesis, cytotoxicity, and inhibition of tubulin polymerization, **J Med Chem**, **43**(23), 2000, 4479-87.
53. Lipunova GN, Nosova ÉV, Mokrushina GA, Sidorova LP and Charushin VN, Antitumor activity of the fluorinated derivatives of condensed quinolines and quinazolines, **Pharm Chem J**, **34**(1), 2000, 19-22.
54. Sherbeny EL, Magda A, Synthesis of certain pyrimido[2,1-b]benzothiazole and benzothiazolo[2,3-b]quinazolines derivatives for *in vitro* antitumor and antiviral activities, **Arzneim Forsch**, **50**(II), 2000, 848-853.
55. Wang YD, Miller K, Boschelli DH, Ye F, Wu B, Floyd MB, Powell DW, Wissner A, Weber JM, Boschelli F, Inhibitors of src tyrosine kinase: the preparation and structure-activity relationship of 4-anilino-3-cyanoquinolines and

- 4-anilinoquinazolines **Bioorg Med Chem Lett**, **10**(21), 2000, 2477-80.
56. Richard Shelton Lehner, Timothy Norris, Dinos paul Santafianos, Synthesis and anticancer activity of 4(3-ethylphenylamino)quinazolines, **Jpn Kokai Tokyo Koho JP**, 290, 2000, 262-265, (cl.Co7D293/94) US Appl pv.127072, 31 (Mar 1999), 15pp, **Chem Abstr**, **133**(20), 2000, 281796r, 769.
57. Ovádeková R, Jantová S, Theiszová M, Labuda J, Cytotoxicity and detection of damage to DNA by 3-(5-nitro-2-thienyl)-9-chloro-5-morpholin-4-yl[1,2,4]triazolo[4,3-c]quinazoline on human cancer cell line HeLa, **Biomed Pap Med Fac Univ Palacky Olomouc Czech Repub**, **149**(2), 2005, 455-59.
58. Jantová S, Letasiová S, Repický A, Ovádeková R, Lakatos B, The effect of 3-(5-nitro-2-thienyl)-9-chloro-5-morpholin-4-yl[1,2,4]triazolo[4,3-c]quinazoline on cell growth, cell cycle, induction of DNA fragmentation and activity of caspase 3 in murine leukemia L1210 cells and fibroblast NIH-3T3 cells, **Cell Biochem Funct**, **24**(6), 2006, 519-30.
59. Ghorab MM, El-Sayed Barakat S, Saker HM, Abd Rabo MM, Synthesis and antitumor activity of some novel quinazoline derivatives bearing the biologically active thione moiety, **ArzneimForschung**, **56**(9), 2006, 665-70.

60. Chinigo GM, Paige M, Grindrod S, Hamel E, Dakshanamurthy S, Chruszcz M, Minor W, Brown ML, Asymmetric synthesis of 2,3-dihydro-2-arylquinazolin-4-ones: methodology and application to a potent fluorescent tubulin inhibitor with anticancer activity **J Med Chem**, **51**(15), 2008, 4620-31.
61. Jantova S, Repicky A, Paulovicova E, Letasiova S, Cipak L, Antiproliferative activity and apoptosis induced by 6-bromo-2-(morpholin-1-yl)-4-anilinoquinazoline on cells of leukemia lines, **Exp Oncol**, **30**(2), 2008, 139-142.
62. Jantova S, Repicky A, Cipak L, 3-(5-Nitro-2-thienyl)-9-chloro-5-morpholin-4-yl[1,2,4]triazolo[4,3-c]quinazoline induces ROS-mitochondrial mediated death signaling and activation of p38 MAPK in murine L1210 leukemia cells, **Neoplasma**, **56**(6), 2009, 494-499.
63. Sirisoma N, Pervin A, Zhang H, Jiang S, Willardsen JA, Anderson MB, Mather G, Pleiman CM, Kasibhatla S, Tseng B, Drewe J, Cai SX, Discovery of *N*-(4-methoxyphenyl)-*N*,2-dimethylquinazolin-4-amine, a potent apoptosis inducer and efficacious anticancer agent with high blood brain barrier penetration, **J Med Chem**, **52**(8), 2009, 2341-51.
64. Alex Joseph, Aravinda Pai, Srinivasan KK, Tukaram Kedar, Angel Treasa Thomas, Jessy EM, Rajeev Singla, Synthesis and anticancer activity of some novel 3-(1, 3, 4-thiadiazol-

- 2-yl)-quinazolin-4-(3*H*)-ones, ***The Electronic J Chem (Orbital)***, **2**(2), 2010, 158-167.
65. Jung SY, Lee SH, Kang HB, Park HA, Chang SK, Kim J, Choo DJ, Oh CR, Kim YD, Seo JH, Lee KT, Lee JY, Antitumor activity of 3,4-dihydroquinazoline dihydrochloride in A549 xenograft nude mice, ***Bioorg Med Chem Lett***, **20**(22), 2010, 6633-36.
66. Yan SJ, Zheng H, Huang C, Yan YY, Lin J, Synthesis of highly functionalized 2,4-diaminoquinazolines as anticancer and anti-HIV agents, ***Bioorg Med Chem Lett***, **20**(15), 2010, 4432-35.
67. Giri RS, Thaker HM, Giordano T, Chen B, Nuthalapaty S, Vasu KK, Sudarsanam V, Synthesis and evaluation of quinazolinone derivatives as inhibitors of NF-kappaB, AP-1 mediated transcription and eIF-4E mediated translational activation: inhibitors of multi-pathways involve in cancer ***Eur J Med Chem***, **45**(9), 2010, 3558-63.
68. Tian W, Qin L, Song Q, He L, Ai M, Jin Y, Zhou Z, You S, Long Y, Yu Q, A novel synthetic analog of 5,8-disubstituted quinazolines blocks mitosis and induces apoptosis of tumor cells by inhibiting microtubule polymerization ***PLoS One***, **5**(5), 2010, 10499-506.
69. Giri RS, Thaker HM, Giordano T, Williams J, Rogers D, Vasu KK, Sudarsanam V, Design, synthesis and evaluation of novel 2-thiophen-5-yl-3*H*-quinazolin-4-one analogues as

inhibitors of transcription factors NF-kappaB and AP-1 mediated transcriptional activation: Their possible utilization as anti-inflammatory and anti-cancer agents, ***Bioorg Med Chem***, **18**(7), 2010, 2796-808.

70. Kamal A, Vijaya Bharathi E, Janaki Ramaiah M, Dastagiri D, Surendranadha Reddy J, Viswanath A, Sultana F, Pushpavalli SN, Pal-Bhadra M, Srivastava HK, Narahari Sastry G, Juvekar A, Sen S, Zingde S, Quinazolinone linked pyrrolo[2,1-c][1,4]benzodiazepine (PBD) conjugates: Design, synthesis and biological evaluation as potential anticancer agents ***Bioorg Med Chem***, **18**(2), 2010, 526-42.
71. Conconi MT, Marzaro G, Guiotto A, Urbani L, Zanusso I, Tonus F, Tommasini M, Parnigotto PP, Chilin A, New Vandetanib analogs: fused tricyclic quinazolines with antiangiogenic potential, ***Invest New Drugs***, **Dec 24**, 2010, 321-329.
72. Li HZ, He HY, Han YY, Gu X, He L, Qi QR, Zhao YL, Yang L, A general synthetic procedure for 2-chloromethyl-4(3H)-quinazolinone derivatives and their utilization in the preparation of novel anticancer agents with 4-anilinoquinazoline scaffolds, ***Molecules***, **15**(12), 2010, 9473-85.
73. Boyapati S, Kulandaivelu U, Sangu S, Vanga MR, Synthesis, antimicrobial evaluation, and docking studies of novel 4-substituted quinazoline derivatives as DNA-gyrase

- inhibitors **Arch Pharm (Weinheim)**, **343**(10), 2010, 570-76.
74. Kidwai M, Bhatnagar D, Kumar R, Luthra PM, Synthesis of 2-oxo/thioxooctahydroquinazolin-5-one derivatives and their evaluation as anticancer agents **Chem Pharm Bull**, (Tokyo), **58**(10), 2010, 1320-23.
75. Verones V, Flouquet N, Farce A, Carato P, Leonce S, Pfeiffer B, Berthelot P, Lebegue N, Synthesis, biological evaluation and docking studies of 4-amino-tetrahydroquinazolino[3,2-e]purine derivatives, **Eur J Med Chem**, **45**(12), 2010, 5678-84.
76. Sirisoma N, Pervin A, Zhang H, Jiang S, Adam Willardsen J, Anderson MB, Mather G, Pleiman CM, Kasibhatla S, Tseng B, Drewe J, Cai SX, Discovery of *N*-methyl-4-(4-methoxyanilino)quinazolines as potent apoptosis inducers. Structure-activity relationship of the quinazoline ring, **Bioorg Med Chem Lett**, **20**(7), 2010, 2330-34.
77. Ye Ding WB, Chen Z, Zhang YD, Yu YP, Lou YJ, [4, 8-disubstituted-8,9-dihydro-pyrazine[2,3-g]quinazoline-7(6*H*)-ketones: a novel class of antitumor agents], **Zhejiang Da Xue Xue Bao Yi Xue Ba**, **39**(1), 2010, 49-56.
78. Dou G, Shi D, Li Y, Oriented synthesis and in vitro anticancer activity of biquinazoline-2,2'-dion, **J Comb Chem**, **12**(1), 2010, 195-99.

79. Nandi S, Bagchi MC, 3D-QSAR and molecular docking studies of 4-anilinoquinazoline derivatives: a rational approach to anticancer drug design, ***Mol Divers***, **14**(1), 2010, 27-38.
80. Abdel Gawad NM, Georgey HH, Youssef RM, El-Sayed NA, Synthesis and antitumor activity of some 2, 3-disubstituted quinazolin-4(3*H*)-ones and 4, 6-disubstituted-1,2,3,4-tetrahydroquinazolin-2*H*-ones, ***Eur J Med Chem***, **45**(12), 2010, 6058-67.
81. Garofalo A, Goossens L, Baldeyrou B, Lemoine A, Ravez S, Six P, David Cordonnier MH, Bonte JP, Depreux P, Lansiaux A, Goossens JF, Design, synthesis and DNA-binding of N-alkyl(anilino)quinazoline derivatives, ***J Med Chem***, **53**(22), 2010, 8089-103.
82. El-Azab AS, Al-Omar MA, Abdel-Aziz AA, Abdel-Aziz NI, el-Sayed MA, Aleisa AM, Sayed-Ahmed MM, Abdel-Hamide SG, Design, synthesis and biological evaluation of novel quinazoline derivatives as potential antitumor agents: molecular docking study, ***Eur J Med Chem***, **45**(9), 2010, 4188-98.
83. Al-Omary FA, Abou-Zeid LA, Nagi MN, Habib el-SE, Abdel-Aziz AA, El-Azab AS, Abdel-Hamide SG, Al-Omar MA, Al-Obaid AM, El-Subbagh HI, Non-classical antifolates. Part 2: synthesis, biological evaluation, and molecular modeling

- study of some new 2,6-substituted-quinazolin-4-ones, ***Bioorg Med Chem***, **18**(8), 2010, 2849-63.
84. Zhang YD, Chen Z, Yu YP, Ding WB, Lou YJ, Synthesis and antitumor activity of disubstituted dihydro pyrazino quinazolines derivatives ***Zhejiang Xue Ba***, **36**(1), 2010, 49-53.
85. Alafeefya AM, Ashourb AE, Design, synthesis and biological evaluation of novel quinazoline derivatives as potential anti-cancer agents, ***J Enzyme Inhib Med Chem***, **Aug 18**, 2011.
86. Perchellet JP, Waters AM, Perchellet EM, Naganaboina VK, Chandra KL, Desper J, Rayat S, Bioactivity of synthetic 2-halo-3-aryl-4(3*H*)-quinazoliniminium halides in L1210 leukemia and SK-BR-3 mammary tumor cells *in vitro*, ***Anticancer Res***, **31**(6), 2011, 2083-93.
87. Thorat DA, Doddareddy MR, Seo SH, Hong TJ, Cho YS, Hahn JS, Pae AN, Synthesis and biological evaluation of 2,4-diaminoquinazoline derivatives as novel heat shock protein 90 inhibitors, ***Bioorg Med Chem Lett***, **21**(6), 2011, 1593-97.
88. Chen Z, Huang X, Yang H, Ding W, Gao L, Ye Z, Zhang Y, Yu Y, Lou Y, Anti-tumor effects of B-2, a novel 2,3-disubstituted 8-arylamino-3*H*-imidazo[4,5-*g*]quinazoline derivative, on the human lung adenocarcinoma A549 cell line *in vitro* and *in vivo*, ***Chem Biol Interact***, **189**(1-2), 2011, 90-99.

89. Li DD, Lv PC, Zhang H, Zhang HJ, Hou YP, Liu K, Ye YH, Zhu HL, Synthesis of 4-anilinoquinazolines, **Bioorg Med Chem**, **19**(16), 2011, 5012-22.
90. Chen KT, Hour MJ, Tsai SC, Chung JG, Kuo SC, Lu CC, Chiu YJ, Chuang YH, Yang JS, The novel synthesized 6-fluoro-(3-fluorophenyl)-4-(3-methoxyanilino)quinazolines (LJJ-10) compound exhibits anti-metastatic effects in human osteosarcoma U-2 OS cells through targeting insulin-like growth factor-I receptor, **Int J Oncol**, **39**(3), 2011, 611-619.
91. Noolvi MN, Patel HM, Bhardwaj V, Chauhan A, Synthesis and in vitro antitumor activity of substituted quinazoline and quinoxaline derivatives: search for anticancer agent, **Eur J Med Chem**, **46**(6), 2011, 2327-46.
92. Kamal A, Bharathi EV, Reddy JS, Ramaiah MJ, Dastagiri D, Reddy MK, Viswanath A, Reddy TL, Shaik TB, Pushpavalli SN, Bhadra MP, Synthesis and biological evaluation of 3,5-diaryl isoxazoline/isoxazole linked 2,3-dihydroquinazolinone hybrids as anticancer agents, **Eur J Med Chem**, **46**(2), 2011, 691-703.
93. Wu X, Li M, Tang W, Zheng Y, Lian J, Xu L, Ji M, Design, synthesis and *in vitro* antitumor activity evaluation of novel 4-pyrrylamino quinazoline derivatives, **Chem Biol Drug Des**, **3**, 2011, 112-118.

94. Beria I, Bossi RT, Brasca MG, Caruso M, Ceccarelli W, Fachin G, Fasolini M, Forte B, Fiorentini F, Pesenti E, Pezzetta D, Posterl H, Scolaro A, Re Depaolini S, Valsasina B, A-4,5-dihydro-1*H*-pyrazolo[4,3-*H*]quinazoline derivative as potent and selective Polo-like kinase-1 inhibitor, ***Bioorg Med Chem Lett***, **21**(10), 2011, 2969-74.
95. Patel HM, Chauhan A, Bhardwaj V, Noolvi MN, *In vitro* antitumor activity of substituted quinazoline derivatives, ***Eur J Med Chem***, **44**(5), 2011, 2320-44.
96. Marvania B, Lee PC, Chaniyara R, Dong H, Suman S, Kakadiya R, Chou TC, Lee TC, Shah A, Su TL, Design, synthesis and antitumor evaluation of phenyl *N*-mustard-quinazoline conjugates, ***Bioorg Med Chem***, **19**(6), 2011, 1987-98.
97. Leszkovszky G, Erdely I, Tardos L, Pharmacology of quinazolone derivatives, ***Acta Physiol Acad Sci Hung***, **24**, 1965, 81-90.
98. Yamamoto M, Morooka S, Keshiba M, Inaba S, Yamamoto H, Synthesis of tetra substituted 1,2,4-triazoloquinazolines, ***Japan Kokai***, 76100098 (Cl.Co7D487/04), 03 Sep 1976, Appl. 75/26806, 03 Mar 1975, 06, ***Chem Abstr***, **86**, 1977, 121364, 552.
99. Koizumi M, Marakuni Y, Mattsura M, Synthesis of 2,6-disubstituted quinazolin-4(3*H*)-ones as anti-inflammatory

- agents, **Japan Kokai.**, **77**, 51, 3738-40; **Chem Abstr**, **87**, 1977, 2015719.
100. Hardtmann G, Kathnwala E, Synthesis of 1,3,4-triazolo quinazolines, **US Pat. 4053**, 1977, **Chem Abstr**, **88**, 1978, 22971.
101. Goetz E. Hardtman, Faizulla G. Kathawala, Tricyclic 1,2,4-triazoloquinazolines, **US Pat 4053** 600 (1970) [cl 424-250; Co7D487/04] 11 Oct 1977, Appl. 72799; 16 Sep 1970, 11, **Chem Abstr**, **88**, 1978, 22970k, 644.
102. Kottke Karl, Kuehmstedt Hans, Graefe Ingo wehlan Helmut, Knoke Dagmar, Preparation of 3-heteroaryl-s-triazolo-(5,1-b)-quinazolin-9(3H)-ones as antirheumatics and antianaphylactics, **Ger (East) Pat** 253, 263, 1988 (cl .Co7D401/04), 27 Jan Appl. 295, 765, 30 Oct 1986, 03; **Chem Abstr**, **109**, 1988, 170464, 728.
103. Kottke H, Kuchmstedt K, Greafe I, Synthesis of substituted triazolo quinazolines, **GER(E) Pat 253**, 1988, 23-26; **Chem Abstr**, **109**, 1988, 180465.
104. Kamal A, Sattur S, Synthesis of some 1,5,7-trisubstituted-1,2,4-triazolo quinazolines as analgesic and anti-inflammatory agents, **Indian J Chem**, **23(B)**, 1988, 1293-98.

105. Nigam R, Swarup S, Saxena VK, anti-inflammatory activity of 3-substituted aryl-2,6-disubstituted quinazolines, ***Indian Drugs***, **27**(4), 1990, 238-244.
106. Srivastava VK, Bhalla M, Shankar K, Antiinflammatory and analgesic activity of indolyl quinazolines and their congeners, ***Arzneim Forsch/Drug research***, **43-1**(5), 1993, 595-600.
107. Daidone G, Maggio B, Raffa D, Plescia S, Bajardi ML, Caruso A, Cutuli VMC, Amico-Roxas M, Synthesis and pharmacological study of ethyl 1-methyl-5-[2-substituted-4-oxo-3(4*H*)-quinazolinyl]-1*H*-pyrazole-4-acetates, ***Eur J Med Chem***, **29**(9), 1994, 707-711.
108. Hitkari A, Bhalla M, Saxena AK, Verma M, Gupta MP, Shanker K, Substituted quinazolinones and their anti-inflammatory activity, ***Boll Chim Farm***, **134**(11), 1995, 609-615.
109. Peter Richard John. Hamley, Austen David. Pimm, Alan Charles. Tinker, Haydn Graham. Beaton, Thomas Micinally, Preparation of quinazolines compounds as anti-inflammatory agents, ***PCT Int Appl Wo*** **97**, 14 686, (cl.C07D239/94) 24 (Apr 1997), GB Appl.96/14, 386, 9 (Jul 1996), 148pp; ***Chem Abstr***, **126**, No 26, 343576k, 1997, 618.

110. Chitchamai Larksarp, Howard Alper, Palladium-Catalyzed Cyclocarbonylation of *o*-Iodoanilines with Heterocumulenes: Regioselective Preparation of 4(3*H*)-Quinazolinone Derivatives, **J Org Chem**, **65**(9), 2000, 2773-79.
111. Saravanan K, Mohan S, Manjunatha KS, Synthesis and antiinflammatory activity of some 6-bromo 2,3 disubstituted-4(3*H*)-quinazolinones **Indian J Heterocycl Chem**, **8**(1), 1998, 55-58.
112. Rity Tyagi, Goel B, Srivastava VK, Kumar A, Quinazolinones as potential Anti-inflammatory agents, **Indian J Pharm Sci**, **60**(5), 1998, 283-286.
113. Bothra KG, Kadam SS, Sai shivram V, Synthesis and pharmacological screening of novel antiinflammatory agents, **Indian Drugs**, **35**(6), 1998, 372-376.
114. Bekhit AA, Khalil MA, Non-steroidal anti-inflammatory agents: synthesis of novel benzopyrazolyl, benzoxazolyl and quinazolinyll derivatives of 4(3*H*)-quinazolinones, **Pharmazie**, **53**(8), 1998, 539-43.
115. Junichi S, Tomomi S, Yuko O, Nobuo K, (Kyowa Hakko Kogyo Co.Ltd., Japan), Synthesis of substituted quinazolines, **Pct Int Appl Wo** **99**, 53-57, 1998, 924 (cl.A61K31/505), JP Appl.(1998)/107, 681, 17 (Apr 1998), 154 pp; **Chem Abstr**, **131**, 1998, 299459.

116. Sarangapani M, Narayan Reddy A, Jayamma Y, Reddy VM, Synthesis and pharmacological activity of new Isatin hydrazones, **Indian Drugs**, **35**(6), 1998, 336-343.
117. Chao Qi, Deng L, Shih H, Leoni LM, Genini D, Carson DA, Cottam HB, Substituted isoquinolines and quinazolines as potential antiinflammatory agents. Synthesis and biological evaluation of inhibitors of tumor necrosis factor alpha, **J Med Chem**, **42**(19), 1999, 3860-73.
118. Rama Sharma GVS, John T, Murugan V, Elango K, Nicotinyl incorporated quinazolinonyl thiadiazoles as possible NSAIDs, **Indian J Heterocycl Chem**, **9**(2), 1999, 151-152.
119. Giedrute M, Emilija U, Povilas G, Vainilavicius S, Povilas R, Synthesis and anti-inflammatory activity of ethyl 4-(anilinosubstituted)-2-quinazolinecarboxylates, **Chemija**, **10**(3), 1999, 214-217.
120. Abdelal Ali M, Goda Fatima E, Mansoura M, **J Pharm Sci**, **15**(1), 2001, 87-91.
121. Daidone G, Maggio B, , Raffa D, Plescia S, Mantione L, Catena Cutuli VM, Mangano NG, Caruso A, Synthesis and pharmacological study of ethyl 1-methyl-5-(substituted 3,4-dihydro-4-oxoquinazolin-3-yl)-1H-pyrazole-4-acetates, **Eur J Med Chem**, **36**, 2001, 737-742.

122. Alagarsamy V, Salomon VR, Vanikavitha G, Paluchamy V, Chandran MR, Sujin AA, Thangathiruppathy A, Amuthalakshmi S, Revathi R, Synthesis, analgesic, anti-inflammatory and antibacterial activities of some novel 2-phenyl-3-substituted quinazolin-4(3H) ones, ***Biol Pharm Bull***, **25**(11), 2002, 1432-1435.
123. Alagarsamy V, Murugananthan G, Venkateshperumal R, Synthesis, analgesic, anti-inflammatory and antibacterial activities of some novel 2-methyl-3-substituted quinazolin-4-(3H)-ones, ***Biol Pharm Bull***, **26**(12), 2003, 1711-1714.
124. Alagarsamy V, Muthukumar V, Pavalarani N, Vasanthanathan P, Revathi R, Synthesis, analgesic and anti-inflammatory activities of some novel 2,3-disubstituted quinazolin-4(3H)-ones, ***Biol Pharm Bull***, **26**(4), 2003, 557-559.
125. Ashok Kumar, Shalabh Sharma, Kiran Bajaj, Deepti Bansal, Shipra Sharma, Archana, Saxena KK, Lata S, Gupta B, Srivastava VK, Synthesis and anti-inflammatory, analgesic, ulcerogenic and cyclooxygenase activity of novel quinazoliny1- Δ^2 -pyrazolines, ***Indian J Chem***, **42B**, 2003, 1979-1984.
126. Ashok Kumar, Sharma S, Archana, Bajaj K, Sharma S, Panwar H, Singh T, Srivastava VK, Some new 2,3,6-trisubstituted quinazolinones as potent anti-inflammatory,

- analgesic and COX-II inhibitors, **Bioorg Med Chem**, **11**, 2003, 5293-5299.
127. Pannerselvam P, Pradeep chandran RV, Sridhar SK, Synthesis, characterization and biological activities of novel 2-methylquinazolin-4(3*H*)-ones, **Indian J Pharm Sci**, **65**(3), 2003, 268-273.
128. Alagarsamy V, Rajesh R, Ramaseshu M, Vijaykumar S, Ramseshu KV, Duraianandakumar T, Synthesis, analgesic, anti-inflammatory and antibacterial activities of some novel 2-methylthio-3-substituted quinazolin-4(3*H*)-ones, **Biol Pharm Bull**, **27**(5), 2004, 652-656.
129. Alagarsamy V, Shankar D, Raja Solom V, Synthesis of some novel 2-mercapto-3-(substitutedamino)-5,6,7,8-tetrahydro-3*H*-benzo[4,5]thieno [2,3-*d*]pyrimidin-4-ones as analgesic and anti-inflammatory agents **ARKIVOC**, **XVI**, 2006, 149-159.
130. Laddha S, Sudhir G. Wadodkar, Sharad K. Meghal, Synthesis, characterization and anti-inflammatory, antimicrobial activity of 6,8-disubstituted 2-phenyl-3-[substituted-benzothiazol-2-yl]-4(3*H*)-quinazolinones **ARKIVOC**, **XI**, 2006, 1-20.
131. Jessy EM, Thirugnana Sambantham A, Alex J, Sridevi CH, Srinivasan KK, Synthesis and biological evaluation of some novel quinazolines, **Ind J Pharm Sci**, 2007, 476-478.

132. Ashok Kumar, Rajput CS, Synthesis and antiinflammatory activity of newer quinazolin-4-one derivatives, ***Eur J Med Chem***, **44**(1), 2007, 83-90.
133. Ashok Kumar, Rajput CS, Bhati SK, Synthesis of 3-[4'-(p-chlorophenyl)-thiazol-2'-yl]-2-[(substituted azetidinone/thiazolidinone)-aminomethyl]-6-bromoquinazolin-4-ones as anti-inflammatory agent, ***Bioorg Med Chem***, **15**(8), April 12, 2007, 3089-96.
134. Srinivasa Reddy P, Venugopala KN, Gopal Krishna Rao, Sanjay Pai PN, Synthesis of some substituted quinazolinones as analgesic and antinflammatory agents, ***Indian J Hetero Chem***, **16**, 2007, 243-246.
135. Alagarsamy V, Shankar D, Murugan M, Siddiqui AA, Rajesh R, Synthesis and pharmacological evaluation of some 3-(4-methylphenyl)-2-substituted amino-3H-quinazolin-4-ones as analgesic and anti-inflammatory agents, ***Arch Pharm***, **340**(1), 2007, 41-46.
136. Liu H, Altenbach RJ, Carr TL, Chandran P, Hsieh GC, Lewis LG, Manelli AM, Milicic I, Marsh KC, Miller TR, Strakhova MI, Vortherms TA, Wakefield BD, Wetter JM, Witte DG, Honore P, Esbenshade TA, Brioni JD, Cowart MD, Cis-4-(Piperazin-1-yl)-5,6,7a,8,9,10,11,11a-octahydrobenzofuro[2,3-H]quinazolin-2-amine (A-987306), a new histamine H4R antagonist that blocks pain

- responses against carrageenan-induced hyperalgesi, **J Med Chem**, **51**(22), 2008, 7094-98.
137. Alagarsamy V, Raja Solomon V, Murugan M, Dhanabal K, Parthiban P, Anjana GV, Design and synthesis of 3-(4-ethylphenyl)-2-substitutedamino-3*H*-quinazolin-4-ones as a novel class of analgesic and anti-inflammatory agents, **J Enzyme Inhib Med Chem**, **23**(6), 2008, 839-47.
138. Fathalla OA, Kassem EM, Ibrahem NM, Kamel MM, Synthesis of some new quinazolin-4-one derivatives and evaluation of their antimicrobial and antiinflammatory effects, **Acta Pol Pharm**, **65**(1), 2008, 11-20.
139. Alafeefy AM, Kadi AA, El-Azab AS, Abdel-Hamide SG, Daba MH, Synthesis, analgesic and anti-inflammatory evaluation of some new 3*H*-quinazolin-4-one derivatives, **Arch Pharm**, **341**(6), 2008, 377-85.
140. Alagarsamy V, Solomon VR, Murugan M, Sankaranarayanan R, Periyasamy P, Deepa R, Anandkumar TD, Synthesis of 3-(2-pyridyl)-2-substituted-quinazolin-4(3*H*)-ones as new analgesic and anti-inflammatory agents, **Biomed Pharmacother**, **62**(7), 2008, 454-61.
141. Mohamed MS, Kamel MM, Kassem EM, Abotaleb N, Nofal SM, Ahmed MF, Novel 3-(*p*-substituted phenyl)-6-bromo-4(3*H*)-quinazolinone derivatives of promising

- antiinflammatory and analgesic properties, **Acta Pol Pharm, 66**(5), 2009, 487-500.
142. Alagarsamy V, Shankar D, Solomon VR, Sheorey RV, Parthiban P, Synthesis and pharmacological evaluation of 3-cyclohexyl-2-substituted hydrazino-3*H*-quinazolin-4-ones as analgesic and anti-inflammatory agents, **Acta Pharm, 59**(1), 2009, 75-88.
143. Alagarsamy V, Raja Solomon V, Sheorey RV, Jayakumar R, 3-(3-ethylphenyl)-2-substituted hydrazino-3*H*-quinazolin-4-one derivatives: new class of analgesic and anti-inflammatory agents, **Chem Biol Drug De, 73**(4), 2009, 471-479.
144. Giri RS, Thaker HM, Giordano T, Williams J, Rogers D, Sudersanam V, Vasu KK, Design, synthesis and characterization of novel 2-(2,4-disubstituted-thiazole-5-yl)-3-aryl-3*H*-quinazolin-4-one derivatives as inhibitors of NF-kappa B and AP-1 mediated transcription activation and as potential anti-inflammatory agents, **Eur J Med Chem, 44**(5), 2009, 2184-89.
145. El-Gazzar AB, Youssef MM, Youssef AM, Abu-Hashem AA, Badria FA, Design and synthesis of azolopyrimidoquinolines, pyrimidoquinazolines as antioxidant, anti-inflammatory and analgesic activities, **Eur J Med Chem, 44**(2), 2009, 609-24.

146. Giri RS, Thaker HM, Giordano T, Williams J, Rogers D, Vasu KK, Sudarsanam V, Design, synthesis and evaluation of novel 2-thiophen-5-yl-3*H*-quinazolin-4-one analogues as inhibitors of transcription factors NF-kappaB and AP-1 mediated transcriptional activation: Their possible utilization as anti-inflammatory and anticancer agents, ***Bioorg Med Chem***, **18**(7), 2009, 2796-808.
147. Pandey VK, Tusi S, Tusi Z, Thiadiazolyl quinazolines as potential antiviral and antihypertensive agents, ***Indian J Chem***, **43B**, 2004, 180-183.
148. Boyapati S, Kulandaivelu U, Sangu S, Vanga MR, Synthesis, antimicrobial evaluation and docking studies of novel 4-substituted quinazoline derivatives as DNA-gyrase inhibitors, ***Arch Pharm***, **343**(10), 2010, 570-76.
149. Alafeefy AM, Kadi AA, Al-Deeb OA, El-Tahir KE, Al-Jaber NA, Synthesis, analgesic and anti-inflammatory evaluation of some novel quinazoline derivatives, ***Eur J Med Chem***, **45**(11), 2010, 4947-52.
150. Panneer selvam T, Vijayaraj P, Synthesis and antiinflammatory activity of some novel 6,7,8,9-tetrahydro-5*H*-5-hydroxy phenyl-2-benzylidin-3-substituted hydrazino thiazolo(2,3-*b*)quinazolines, ***Bull Korean Chem Soc***, **31**(11), 2010, 3265-3271.
151. Hunoor RS, Patil BR, Badiger DS, Vadavi RS, Gudasi KB, Magannavar CV, Muchandi IS. A study of anti-

- inflammatory and analgesic activity of new 2,3-disubstituted 1,2-dihydroquinazolin-4(3*H*)-one derivative and its transition metal complexes, **Chem Pharm Bull** (Tokyo), **58**(5), 2010, 712-716.
152. Stephenrathinaraj B, Rajveer C, Kumaraswamy D, Sudharshini S, Swarnalatha C, Rajamanickam V, Synthesis and evaluation of some 6-bromo-2-phenyl-3-substituted-4-quinazolinone derivatives for their anti-inflammatory, analgesic and antibacterial Activity, **Int J Pharma research**, **2**(3), 2010, 50-56.
153. El-Sabbagh OI, Ibrahim SM, Baraka MM, Kothayer H, Synthesis of new 2,3-dihydroquinazolin-4(1*H*)-one derivatives for analgesic and anti-inflammatory evaluation, **Arch Pharm**, **343**(5), 2010, 274-81.
154. Hoonur RS, Patil BR, Badiger DS, Vadavi RS, Gudasi KB, Dandawate PR, Ghaisas MM, Padhye SB, Nethaji M, Transition metal complexes of 3-aryl-2-substituted 1,2-dihydroquinazolin-4(3*H*)-one derivatives: new class of analgesic and anti-inflammatory agents, **Eur J Med Chem**, **45**(6), 2010, 2277-82.
155. Amin KM, Kamel MM, Anwar MM, Khedr M, Syam YM, Synthesis, biological evaluation and molecular docking of novel series of spiro [(2*H*,3*H*) quinazoline-2,1'-cyclohexan]-4(1*H*)-one derivatives as anti-inflammatory and analgesic agents, **Eur J Med Chem**, **45**(6), 2010, 2117-31.

156. Rather BA, Raj T, Reddy A, Ishar MP, Sivakumar S, Paneerselvam P, Synthesis and evaluation of novel 2-substituted quinazolin-4(3*H*)-ones as potent analgesic and anti-inflammatory agents, **Arch Pharm** (Weinheim), **343**(2), 2010, 108-13.
157. Hunoor RS, Patil BR, Badiger DS, Vadavi RS, Gudasi KB, Magannavar CV, Muchandi IS, A study of anti-inflammatory and analgesic activity of new 2,3-disubstituted 1,2-dihydroquinazolin-4(3*H*)-one derivative and its transition metal complexes, **Chem Pharm Bull** (Tokyo), **58**(5), 2010, 712-16.
158. Mosaad MS, Mohsen KM, Emad KM, Abotaleb N, Salwa NM, Marwa AF, Novel 6,8-dibromo-4(3*H*)-quinazolinone derivatives of promising anti-inflammatory and analgesic properties, **Acta Pol Pharm**, **67**(2), 2010, 159-71.
159. Mohamed MS, Kamel MM, Kassem EM, Abotaleb N, Khedr M, Ahmed MF, Synthesis, biological evaluation and molecular docking of quinazoline-4(1*H*)-one derivatives as anti-inflammatory and analgesic agents, **Acta Pol Pharm**, **68**(5), 2011, 665-75.
160. Kumar KS, Kumar PM, Kumar KA, Sreenivasulu M, Jafar AA, Rambabu D, Krishna GR, Reddy CM, Kapavarapu R, Shivakumar K, Priya KK, Parsa KV, Pal M, A new three component reaction: green synthesis of novel isoindolo[2,1-

- a]quinazoline derivatives as potent inhibitors of TNF- α , ***Chem Commun***, **47**(17), 2011, 5010-2.
161. El-Hiti GA, Abdel-Megeed MF, Zied TMM, Synthesis and reactions of some 3-aryl-2-thioxoquinazolin-4(3*H*)-ones, ***Indian J Chem***, **41B**, 2002, 1519-1522.
162. Alagarsamy V, Revathi R, Meena S, Ramaseshu V, Rajasekaran S, De Clercq E, AntiHIV, antibacterial and antifungal activities of some 2,3-disubstituted quinazolin-4(3*H*)-ones, ***Indian J Pharm Sci***, 2004, 459-462.
163. Pandey VK, Tusi S, Tusi Z, Dixit M, Joshi MN, Bajpai SK, Thiadiazolyl quinazolones as potential antiviral and antihypertensive agents, ***Indian J Chem***, **43B**, 2004, 180-183.
164. Selvam P, Girija K, Nagarajan G, De Clercq E, Synthesis, antibacterial and antiHIV activities of 3-(5-amino-6-(2,3-dichloro-phenyl)-(1,2,4)-triazin-3-yl)-6,8-dibromo-2-substituted-3*H*-quinazolin-4-one, ***Indian J Pharm Sci***, 2005, 484-487.
165. Kim D, Wang L, Hale JJ, Lynch CL, Budhu RJ, Maccoss M, Mills SG, Malkowitz L, Gould SL, DeMartino JA, Springer MS, Hazuda D, Miller M, Kessler J, Hrin RC, Carver G, Carella A, Henry K, Lineberger J, Schleif WA, Emini EA, Potent 1,3,4-trisubstituted pyrrolidine CCR5 receptor antagonists: effects of fused heterocycles on antiviral

- activity and pharmacokinetic properties, **Bioorg Med Chem Lett**, **15**, 2005, 2129-2134.
166. Pandey VK, Pathak LP, Mishra V, Synthesis and characterisation of isoquinolinylnyl quinazolines and a study of their antiviral and antifungal activities, **Indian J Chem**, **44B**, 2005, 1940-1943.
167. Du-Jong Baek, Tae-Beom Kang, Hyun Ju Kim, Synthesis of nonclassical quinazolinone antifolates as thymidylate synthase inhibitors and their antitumor activity *in vitro*, **Bull Korean Chem Soc**, **25**(12), 2005, 1898-1906.
168. Girija K, Selvam P, Nagarajan R, De Clercq E, Gopal V, Synthesis and cytostatic activity of some 3-c,5-amino-6(2,3-dichlorophenyl)(1,2,4)triazin-3-yl)6,8-dibromo-2-substituted-(3*H*)-quinazolin-4-ones, **Indian J Hetero Chem**, **14**, 2005, 255-256.
169. Cao SL, Feng YP, Jiang YY, Liu SY, Ding GY, Li RT, Synthesis and *in vitro* antitumor activity of 4(3*H*)-quinazolinone derivatives with dithiocarbamate side chains, **Bioorg Med Chem Lett**, **15**, 2005, 1915-1917.
170. Jin Y, Zhou ZY, Tian W, Yu Q, Long YQ, 4'-Alkoxy substitution enhancing the anti-mitotic effect of 5-(3',4',5'-substituted)anilino-4-hydroxy-8-nitroquinazolines as a novel class of anti-microtubule agents, **Bioorg Med Chem**, **16**, 2006, 5864-5869.

171. De Jonge MJ, Dumez H, Verweij J, Yarkoni S, Snyder D, Lacombe D, Marréaud S, Yamaguchi T, Punt CJ, van Oosterom A, Phase I and pharmacokinetic study of halofuginone, an oral quinazolinone derivative in patients with advanced solid tumours, ***Eur J Cancer***, **42**, 2006, 1768-1774.
172. Al-Rashood ST, Aboldahab IA, Nagi MN, Abouzeid LA, Abdel-Aziz AA, Abdel-Hamide SG, Youssef KM, Al-Obaid AM, El-Subbagh HI, Synthesis, dihydrofolate reductase inhibition, antitumor testing and molecular modeling study of some new 4(3*H*)-quinazolinone analogs, ***Bioorg Med Chem***, **14**, 2006, 8608-8621.
173. Pandey VK, Jitendra Kumar, Synthesis of 1,3,5-Tri-*p*-(quinazolin-4-one-3-yl)-phenyl)2,4,6-hexahydro 1,3,5,6-triazines as potential anti TMV and antibacterial agents ***Indian J Heterocycl Chem***, **16**, 2006, 65-66.
174. Pandey VK, Mukesh, Tandon M, Synthesis and antiviral activity of quinazoliny-4(3*H*)-ones, ***Indian J Heterocycl Chem***, **15**, 2006, 399-400.
175. Bishnoi A, Saxena R, Srivastava K, Joshi MN, Bajpai SK, Synthesis and biological activity of thionitriazolo isoquinazoliny-4(3*H*)-ones, ***Indian J Heterocycl Chem***, **15**, 2006, 307-308.

176. Meyyanathan SN, Murali KE, Chandrasekar HR, Godavarthi A, Dhanaraj SA, Vijayan P, Suresh B, Synthesis and antiviral activity of some amino acids incorporated quinazolines derivatives, **Indian Drugs**, **43**(6), 2006, 497-502.
177. Gao X, Cai X, Yan K, Song B, Gao L, Chen Z, Synthesis and antiviral bioactivities of 2-methyl-3-(substituted-benzalamino)-4(3*H*)-quinazolinone derivatives, **Molecules**, **12**(12), 2007, 2621-42.
178. Forsch RA, Wright JE, Rosowsky A, Synthesis and *in vitro* antitumor activity of thiophene analogues of 5-chloro-5,8-dideazafolic acid and 2-methyl-2-desamino-5-chloro-5,8-dideazafolic acid, **Bioorg Med Chem**, **10**(6), 2007, 2067-2076.
179. Gao X, Cai X, Yan K, Song B, Gao L, Chen Z, Synthesis and antiviral bioactivities of 2-aryl or 2-methyl-3-(substituted-benzalamino)-4(3*H*)-quinazolinone derivatives, **Molecules**, **12**(12), 2008, 2621-42.
180. Lyakhova EA, Gusyeva YA, Nekhoroshkova JV, Shafran LM, Lyakhov SA, Synthesis and affinity to DNA of phenylbenzoimidazoles and benzoimidazo[1,2-*c*]quinazolines, **Eur J Med Chem**, **44**(8), 2009, 3305-12.
181. Kumar KS, Ganguly S, Veerasamy R, De Clercq E, Synthesis, antiviral activity and cytotoxicity evaluation of

- Schiff bases of some 2-phenyl quinazoline-4(3*H*)-ones, ***Eur J Med Chem***, **45**(11), 2010, 5474-79.
182. Zhu X, Zhao G, Zhou X, Xu X, Xia G, Zheng Z, Wang L, Yang X, Li S, 2,4-Diaryl-4,6,7,8-tetrahydroquinazolin-5(1*H*)-one derivatives as anti-HBV agents targeting at capsid assembly, ***Bioorg Med Chem Lett***, **20**(1), 2010, 299-301.
183. Sakthi Saravanan, Periyasamy Selvam, Dhani Ram Lakra, De. Clercq, Design, Synthesis, antiviral and cytotoxicity studies of some 2-phenyl-3-substituted quinazolin-4(3*H*)-ones, ***Asian J of Chem***, **23**(1), 2011, 260-264.
184. Krishnan SK, Ganguly S, Veerasamy R, Jan B, Synthesis, antiviral and cytotoxic investigation of 2-phenyl-3-substituted quinazolin-4(3*H*)-ones, ***Eur Rev Med Pharmacol Sci***, **15**(6), 2011, 673-81.
185. Jackman GB, Petrow V, Stephenson O, Some 2,3-disubstituted-4(3*H*)-quinazolines and 3*H*-thioquinazolones, ***J Pharm Pharmacol***, **12**, 1960, 529-38.
186. Chaurasia MR, Sharma SK, Synthesis of some new 4(3*H*)-quinazolinones as potential CNS depressants, ***Arch Pharm***, **315**, 1982, 377-81.
187. Tanabe Seiyaku, Seiyaku G, Synthesis of 2-fluoromethyl-3-substitutedphenyl-6-amino quinazolin-4(3*H*)-ones as CNS

- depressant activity, *Jpn Kokai Tokyo Koho, JP*, 59, 128, 37-40; *Chem Abstr*, **102**, 2985, 6567.
188. Lakhan R, Singh RL, Synthesis of 2-substituted thio-3-substituted phenyl quinazolin-4(3*H*)-ones as CNS depressant activity, *Farmaco Ed Sci*, **43**(9), 1988, 745-749.
189. Abdul Hamide SG, El Hakim AE, El Helby AA, Synthesis and anticonvulsant activity of 2-(((5-ethyl-5-phenyl-1-barbituryl) methyl) carbonyl) thio-3,6,8-trisubstituted quinazolin-4(3*H*)-ones, *J Pharm Sci*, **17**, 1996, 35.
190. Ibrahim MK, Al Azhar, Synthesis and anticonvulsant activity of 3-substituted-6,8-dichloro-2-phenyl-4(3*H*)-quinazolines, *J Pharm Sci*, **22**, 1998, 9-12.
191. Hassanein HH, Ibraheem E, El Ghandour S, Al Azhar, synthesis of 1,3-disubstituted quinazolin-2,4-diones as anticonvulsant agents, *J Pharm Sci*, **22**, 1998, 35-39.
192. Nawrocka W, Stasko JJ, New quinazolin-4-ones. antiinflammatory and anticonvulsant agents. New classes of pharmacologically active compounds, *Boll Chim Farm*, **137**(2), 1998, 35-39.
193. Usifoh Cyrilo, Scriba GK, Synthesis and anticonvulsant activity of acetylenic quinazolinone derivatives, *Arch Pharm*, **333**(8), 2000, 261-66.

194. Kumar P, Agarwal JC, Nath C, Bhargava KP, Shanker K, Substituted dopamine quinazolones as potent antiparkinsonian agents, *Pharmazie*, **36**, 1981, 780-782.
195. Zappala M, Grasso S, Micale N, Zuccalà G, Menniti FS, Ferreri G, De Sarro G, De Micheli C, 1-aryl-6,7-methylenedioxy quinazolin-4(3H)-ones as anticonvulsant agents *Bioorg Med Chem*, **13**, 2003, 4427-4430.
196. Archana, Srivastava VK, Kumar A, Synthesis of some newer derivatives of substituted quinazolinonyl-2-oxo/thiobarbituric acid as potent anticonvulsant agents, *Bio & Med Chem*, **12**, 2004, 1257-1264.
197. Aysel Gursoy, Nalan Terzioglu, Synthesis and isolation of new regioisomeric 4-thiazolidinones and their anticonvulsant activity, *Turk J Chem*, **29**, 2005, 247-254.
198. Patel HH, Khedekar PB, Bhusari KP, Synthesis and pharmacological screening of some substituted benzthiazole derivatives of thioquinazolinone, *Indian J Heterocycl Chem*, **15**, 2006, 217-220.
199. Jatav V, Mishra P, Kashaw S, Stables JP, Synthesis and CNS depressant activity of some novel 3-[5-substituted 1,3,4-thiadiazole-2-yl]-2-styryl quinazoline-4(3H)-ones, *Eur J Chem*, **43**, 2008, 135-141.

200. Jatav V, Mishra P, Kashaw S, Stables JP, CNS depressant and anticonvulsant activities of some novel 3-[5-substituted 1,3,4-thiadiazole-2-yl]-2-styryl quinazoline-4(3*H*)-ones, ***Eur J Med Chem***, **43**(9), 2008, 1945-54.
201. Kashaw SK, Kashaw V, Mishra P, Jain NK, Stables JP, Synthesis, anticonvulsant and CNS depressant activity of some new bioactive 1-(4-substituted-phenyl)-3-(4-oxo-2-phenyl/ethyl-4*H*-quinazolin-3-yl)-urea, ***Eur J Med Chem***, **44**(11), 2009, 4335-43.
202. Pandeya SN, Praveen kumar, Design, synthesis and anticonvulsant study of substituted 3-[(substituted)-amino]-2-2-phenyl-3*H*-quinazolin-4-ones, ***Int J of Pharmacol and Biol Sci***, **4**(3), 2010, 55-61.
203. Markosyan A, Gabrielyan S, Arsenyan F, Sukasyan R, Synthesis, antineoplastic and antimonooxidase activity of 3-allyl-4-oxo-2-thioxo-1,2,3,4,5,6-hexahydrospiro(benzo[*h*]quinazoline-5,1'-cyclohexanes), ***J Pharma Chem***, **44**(8), 2010, 405-408.
204. Panneerselvam T, Palanirajan V, Prakash CR, Raja S, Synthesis and anticonvulsant activity of 6,7,8,9-tetrahydro-5*H*-5-(2'-hydroxy phenyl)-2-(4'-substituted benzylidene)-3-(4-nitrophenyl amino) thiazolo quinazoline derivatives, ***Toxicological and Envir Chem***, **93**(4), 2011, 643-655.

205. Shrivastava B, Praveen kumar, Pandeya SN, Stables JP, Design, synthesis and potential 6 Hz psychomotor seizure test activity of some novel 2-(substituted)-3-{{substituted}amino}quinazolin-4(3*H*)-one ***Eur J Med Chem***, **46**(4), 2011, 1006-1018.
206. Francis JE, Cash WD, Psychoyos S, Ghai G, Wenk P, Friedmann RC, Atkins C, Warren V, Furness P, Hyun JL, Structure-activity profile of a series of novel triazoloquinazoline adenosine antagonists, ***J Med Chem***, **31**, 1988, 1014-20.
207. Francis JE, Cash WD, Barbaz BS, Bernard PS, Lovell RS, Mazzenga GC, Friedmann RC, Hyun JL, Braunwalder AF, Loo PS, Synthesis and benzodiazepine binding activity of a series of novel [1,2,4]triazolo[1,5-*c*]quinazolin-5(6*H*)-ones, ***J Med Chem***, **34**(1), 1991, 281-90.
208. Takase Y, Saeki T, Fujimoto M, Saito I, The discovery of a novel potent inhibitor, 4-((3,4-(methylenedioxy)benzyl)amino)-6,7,8-trimethoxy quinazoline, ***J Med Chem***, **36**(24), 1993, 3765-70.
209. Franco Gatta, Maria Rosaria Del Giudice, Anna Borioni, Synthesis of [1,2,4]triazolo quinazoline and [1,2,4]-triazolo-1,4-benzodiazepine derivatives, ***J Heterocycl Chem***, **30**(1), 1993, 11-16.

210. Splegel K, Agrafiotis D, Caprathe B, Davis RE, Dickerson MR, Fergus JH, Hepburn TW, Marks JS, Van Darf M, Wieland DM, A non peptide inhibitor of nerve growth factor's binding to the P75 NGF receptor, **Bio Chem Bio Phys Res Commun**, **217**(2), 1995, 488-494.
211. Lee SJ, Konishi Y, Yu DT, Miskowski TA, Riviello CM, Macina OT, Frierson MR, Kondo K, Sugitani M, Sircar JC, 2-Pyridyl and 2-imidazolyl quinazolines possessing cyclic GMP phosphodiesterase and thromboxane synthesis inhibitory activities **J Med Chem**, **38**(8), 1995, 3547-57.
212. Kaddachi MT, Rabet HM, Baccar B, Action of amino benzopheonones, 1-aminoanthraquinone iminoester *N*-acyles: voie de synthesis of quinazolines, **J Soc Chim Tunisie**, **3**(9), 1995, 575-579.
213. Gutschow M, Drossler K, Leistner S, Synthesis of *N*-1 substituted 3-(2-mercapto ethyl)quinazolines-2,4-(1*H*,3*H*)-diones from bis(2-(2-aminobenzoylamino)ethyl)disulfane and testing of immune stimulant activity, **Arch Pharm**, (Weinhein) **328**(3), 1995, 277-281.
214. Gazit A, Chen J, App H, McMahon G, Hirth P, Chen I, Levitzki A, Tyrphostins IV-highly potent inhibitors of EGF receptor kinase. Structure activity relationship study of 4-anilidoquinazolines, **Bioorg Med Chem**, **4**(8), 1996, 1203-1207.

215. Kim Yong Chul, Xiao-duo Ji, Kenneth A Jacobson, Derivatives of the triazoloquinazoline adenosine antagonist are selective for the human A₃ receptor subtype, **J Med Chem**, **39**(21), 1996, 4142-4148.
216. Biagi G, Giorgi I, Livi O, Scartoni V, Velo S, Lucacchini A, Senatore G, De Santis B, Martinelli A, 1,2,3-triazolo[1,5-a]quinazolines: Synthesis, benzodiazepine receptor binding and theoretical calculations, **Farmaco**, **51**(2), 1996, 131-136.
217. Denny WA, Rewcastle GW, Bridges AJ, Fry DW, Kraker AJ, Structure activity relationships for 4-anilinoquinazolines as potent inhibitors at the ATP binding site of the epidermal growth factor receptor *in vitro*, **Clin Exp Pharmacol Physiol**, **23**(5), 1996, 424-427
218. Rewcastle GW, Palmer BD, Thompson AM, Bridges AJ, Cody DR, Zhou H, Fry DW, McMichael A, Denny WA, Isomeric 4-[(3-bromophenyl)amino]pyrido[d]-pyrimidines are potent ATP binding site inhibitors of the tyrosine kinase function of the epidermal growth factor receptor, **J Med Chem**, **39**(9), 1996, 1823-1835.
219. Gabor Bernath, Jenő Kobor, Ferenc Fulop, János Lazar, Synthesis of 2-substituted-6-(6',7'-dimethoxy-3',4'-dihydro-1'-isoquinolyl)-5,6,7,8-tetrahydroquinazolin-4(3H)-one derivatives, **J Heterocycl Chem**, **33**(6), 1996, 1983-1987.

220. Gary A Roth, Jimmy J Tai, A new synthesis of aryl substituted quinazolin-4(1*H*)-ones, **J Heterocycl Chem**, **33**(6), 1996, 2051-2053.
221. El Hashash MA, Sdman AS, El Ghaffar NF, Abdi soliman FMA, Souka LM, Dawood NT, Al Azhar, Synthesis and biological activity of 2-substituted quinazolin-4(3*H*)-thione derivatives, **Bull Sci**, **7**(1), 1996, 11.
222. Bertrand Leo, Greenamyre, John Timothy, Menniti, Frank Samuel, Welch Willard McKowan, Preparation of 3-(2-chlorophenyl)-2-[2-(6-diethylamino methylpyridin-2-yl)vinyl]-6-fluoro-3*H*-quinazolin-4-ones as an AMPA antagonist for the treatment of dyskiasias associated with dopamine against therapy, **Eur Pat Appl. Ep 900**, 567 (cl. A61k31/505) 10 March 1999, US Appl. 57, 965, 5 Sep 1997, 6pp; **Chem Abstr**, **130**(16), 1999, 209717m, 611.
223. Heinrich R, Tibur S, Pascel R, Yasuchika Y, Blomley T, Schilling W, Criscione L, Quinazoline derivatives useful as antagonists of NPY receptors subtype Ys, **PCT Int Appl Wo**, 9720820 (cl. Co7D239/95), 12 June 1997, **US**. Appl. 566 349, 1 Dec 1995, 94pp; **Chem Abstr**, **127**(7), 1997, 95292z, 614.
224. Elliot, Mark Leonard, Welch Willard McKowan, Preparation of 2,3-disubstituted-4(3*H*) quinazolinones as AMPA receptor antagonists, **PCT Int Appl Wo** 97 43276 1997,

- (cl.Co7D401/06), 20 Nov 1997, US Appl. 17, 738, 15 May 1996, 77pp; **Chem Abstr**, **128**(4), 1998, 34774g, 569.
225. Sarac S, Yarim M, Ertan M, Erol K, Aktan Y, 4-aryl-5-oxo-1,2,3,4,5,6,7,8-octahydroquinazoline-2-thione derivatives: synthesis enantiomeric separation and *in vitro* screening as calcium antagonists, **Bull Chim Farm**, **136**(11), 1997, 657-664.
226. Mitskyavichyus V, Synthesis of derivatives of 1-(2-carboxyethyl)-1*H*, 3*H*-quinazoline-2,4-dione, **Chem Heterocycl Compd**, **31**(1), 1997, 96-98.
227. Arpad A, Kiss A, Almasi J, Szabo M, Kokosi J, Hermecz I, Synthesis of hetero condensed quinazolines: 1,2,4-triazino[6,1-*b*]-and 1,2,5-triazino [2,3-*b*] quinazolines, **Acta Pharm Hung**, **67**(6), 1997, 255-261.
228. Debi Prasad A, Subhagata C, Synthesis and characterization of 2,3-disubstituted quinazolin-4(3*H*)-ones, **Indian J Heterocycl Chem**, **7**(2), 1997, 101-107.
229. Aleem Ganjee, Anil Vasudevant, Roy L. Kisliuk, Nonclassical 5-substituted tetrahydroquinazolines as potential inhibitors of thymidylate synthase, **J Heterocycl Chem**, **34**(6), 1997, 1669-1676.
230. Monika Szabo, Jozsef Kokosi, Attila Kovacs, Zsolt Bocskei, Istvan Hermecz, Stereoselective synthesis of a 2,3-

- disubstituted 5-pyrrolidinone derivative of quinazolines-4(3*H*)-one ***Heterocycles***, **45**(12), 1997, 2437-2442.
231. Stankovsky S, Katarina S, Synthesis of 3-aryl-4-quinazolones, ***Conf Org Chem Adv Org Chem***, **22**, 1997, 216-219.
232. Kalinowska Torz J, Skwarski D, Sobiak S, Piechocki S, Synthesis of methylquinazolin-4(3*H*)-one derivatives, ***Pol J Chem***, **71**(1), 1997, 57-62.
233. Michael Myers R, Natalie N. Setzer, Alfred P. Spada, Allison L. Zulli, Chin-Yi J, Hsu, Asher Zilberstein, Susan E. Johnson, Linda E. Hook, Mary V. Jacoski, The preparation and SAR of 4-(anilino), 4-(phenoxy) and 4-(thiophenoxy)quinazolines: Inhibitors of p56^{lck} and EGF-R tyrosine kinase activity, ***Bioorg Med Chem Lett***, **7**(4), 1997, 417-420.
234. Kazuyoshi Seguchi, Satoko Tanaka, One-pot synthesis of 1,10-dihydro-2*H*-imidazo [3,4-*a*]quinazoline-1-ones from 3-acyl-1,2-dihydrocinnoline-1,2-dicarboximides, ***Heterocycles***, **45**(4), 1997, 707-713.
235. Volovenko Yu M, New route for the Synthesis of isoquino[2,3]quinazolines, ***Chem Heterocycl Compd***, **33**(8), 1997, 997-999.

236. Spirkova K, Stankovsky S, Zahradnik M, Anellation to the quinazolines ring: Preparation and utilization of 3-quinazolylcarboxylates in the synthesis of fused system, **Chem Pap**, **51**(6), 1997, 403-407.
237. Bertrand Leo. Chenard, Kevin Dale, Shenk, Methods of preparing substituted 3-phenyl and 3-pyridyl-4(3H)-quinazolinones and atropiomers thereof useful as AMPA inhibitors or their intermidates, **Eur Pat Appl Ep** 934934, (cl. Co7D239/91) 11 Aug 1999, **US Appl.** 74150, 9 Feb 1998, 31 pp; **Chem Abstr**, **131**(11), 1999, 144610v, 744.
238. Yong Chul K, De Zwart M, Chang L, Moro S, VonFrijtag Drabbe Kunzel JK, Melman N, Ijzerman AP, Jacobson KA, Derivatives of the triazoloquinazoline adenosine adenosine antagonist (CGS 15943) having high potency at the human A2B and A3 receptors, **J Med Chem**, **41**(15), 1998, 2835-45.
239. Welch Jr. Willard Kckowan, Keith M Devries, Prepartion of atropiomers of 3-aryl-4(3H)-quinazolinones and their use as AMPA receptor antagonists, **Pct Int Appl Wo** 9838173, (cl.Co7D239/91) 3 Sep 1998, **US Appl.** 38905, 28 Feb 1997, 81pp; **Chem Abstr**, **129**(18), 1998, 230733c, 679.
240. Charles H, Keith WM, Chen C, Mustapha H, Mc Carthy M, James R, synthesis of 2,4,8-trisubstituted quinazolines, **Jonsen Pharmaceutica**, **NV(C07D 215/42)**, 29 Oct

- 1998, US Appl.44, 525, 22 (Apr 1997), 32 pp; **Chem Abstr,129**, 1998, 30738.
241. Yasser B, Shakhidoyatov KM, Chemical transformation reactions of 2,3-disubstituted-1,2,3,4-tetrahydroquinazolin-4-ones, **Doki Akad Nauk Resp Vzb**, **5**, 1998, 30-34.
242. Thebeiti-AL, Marzoog S, Zohry-EL, Maher F, Synthesis of some new spirothiazolidione and spirpazetidinone derivatives incorporated with quinazolines, **Indian J Chem**, **37(B)**, 1998, 804-809.
243. Du-Jong Baek, Yang-Kee Park, Hong IL Heo, Myounghee Lee, Zungyoon Yang, Myounghee Choi, Synthesis of some bioactive 5-substituted quinazolinone derivatives, **Bioorg & Med Chem Lett**, **8(23)**, 1998, 3287-3290.
244. Shaban MAE, Taha MAM, Nasar AZ, Synthesis and biological activity of 1,2,4-triazino[4,3-c] quinazolines and 4-(pyrazol-1-yl) quinazolines, **Heterocycl Commun**, **4(5)**, 1998, 473-479.
245. EL-Deen M Ibrahim, A convenient preparation of 3-substituted-2-N-phenylamino-4(1H,3H)-quinazolines, **J Serb Chem Soc**, **93(12)**, 1998, 915-920.
246. Mekuskiene G, Rocka V, Vainilavicius P, Synthesis of 2,3-disubstituted quinazolin-4(3H)-ones, **Khim Farm Zh**, **32(10)**, 1998, 10-13.

247. Zohry EL, Maher F, Lihaibi AL, Sultan S, Fand TA, Synthesis of spiroquinazolin-4-heterocyclic derivatives, **Bull Pol Acad Sci**, **46**(4), 1998, 353-356.
248. El Feky SA, Synthesis of certain new sulfur containing quinazolone, **Bull Chim Farm**, **137**(7), 1998, 286-289.
249. Robert S Atkinson, Christopher K Meades, Hassan A Albar, Aziridination of naphthalene by 3-acetoxyaminoquinazolin-4(3*H*)-ones, **Chem Commun**, **1**, 1998, 29-30.
250. Wojciech szczepankiewicz, Jerzy suwinski, Synthesis of 4-arylaminoquinazolines via 2-amino-*N*-arylbenzamidines, **Tetrahedron Lett**, **39**(13), 1998, 1785-1786.
251. Wojciech W, Agnieszka K, Elizabeth HM, Synthesis of certain analogues of 2,4-diamino quinazolinones, **Heterocycles**, **48**(2), 1998, 319-324.
252. Thierry besson, Marie Joelle, Jerome G, Patrick J, Marie L, Rees D, Charles W, **Tetrahedron Lett**, **54**(23), 1998, 6475.
253. Huiying LI, Runqiu H, Dewen Q, Zhao Y, Xin L, Junan M, Zhihua M, Synthesis of some 4-quinazolinone oxmine ethers, **Prog Nat Sci**, **8**(3), 1998, 359-361.
254. Nilgun karali, Eser illhan, Aysel gursoy, Muammer kiraz, new cyclohexylidenehydrazide and 4-aza-1-

- thiaspiro[4,5]decan-3-one derivatives of 3-phenyl-4(3*H*)quinazolinones, ***Farmaco***, **53**(5), 1998, 346-349.
255. Amine MS, Eissa AMF, Shaaban AF, Elsayy A, El Sayed R, Utilization of 2-(β -carboxy ethyl)quinazolin-3*H*-thione in the synthesis of condensed and non condensed heterocycles, ***Indian J Heterocycl Chem***, **7**(4), 1998, 289-292.
256. Tonkikh NN, Strakov Ya A, Petrova MV, Synthesis and reactions of 2-(4-pyridyl)-7,7-dimethyl-5-oxo-5,6,7,8-tetrahydroquinazoline, ***Chem Heterocycl Compd***, **34**(1), 1998, 92-95.
257. Pastors P, Avotins F, Petrova M, Strakovs A, Synthesis of some new trifluoro methyl quinazolines derivatives, ***Latv Kim***, **7**(2), 1998, 91-97.
258. Kandeel EM, Hammouda M, Sadek EG, Khalil AM, Aminoazoles in heterocyclic synthesis; synthesis of some new benzimidazolo, triazolo, terazolo, pyrazolo, thiadiazolo, pyrimido and pyridine quinazolinones, ***Indian J Heterocycl Chem***, **8**(1), 1998, 15-18.
259. Ibrahim SS, Abdel Halim AM, Gabr Y, El Edfaury S, Abdul Rahman RM, Synthesis and biological activities of some new fully fused quinazolines derivatives, ***Indian J Chem***, **37**(B), 1998, 62-67.

260. Marci Catherine Koko, Arthur Attilio, 2 or 3-(Substituted amino alkyoxyphenyl) quinazolin-4-ones useful as partial estrogen agonists, **US Pat** 5948, 775 (cl.514212; A61K31/505), 7 Sep 1999, **US Appl.** 41088, 19 Mar 1997, 9 pp; **Chem Abstr**, **131**(16), 1999, 706, 214292u, 706.
261. Pramilla S, Garg SP, Synthesis and antiamoebic activity of 3-(substituted methyl)-2,6-disubstituted quinazolin-4(3H)-ones, **J Indian Comm Chem**, **16**(2), 1999, 17-22.
262. Mateo A, Pedro M, Angel V, Fulgencio T, Synthesis of β -lactum carbonyl group of substituted quinazolin-4-ones, **Conf Synth Org Chem**, **33**, 1999, 335-341.
263. Mohammad Khajavi sadegh, Hosseini sadat, Seyed Saheb, Montazari, Nasser, Microwave irradiation promoted reactions of benzoxazin-4-ones with primary amines. Preparation of 4(3H)-quinazolinones, **Iran J Chem**, **18**(1), 1999, 30-34.
264. Feng He and Bary B, Snider, Rearrangement of 4-imino-4H-3,1-benzoxazines to 4-quinazolinones via amidine carboxamides, **J Org Chem**, **64**(4), 1999, 1397-1399.
265. Santagati A, Modica M, Scolaro L, Monsu M, Santagati M, synthesis of new synthetic approaches to fused heterocyclo quinazolinones, **J Chem Res Synop**, **86**(2), 1999, 460-464.

266. Xuedong Dai, Scott Virgil, Synthesis of 2-hetero substituted quinazolinone atropisomeric phosphine ligands by direct lithiation of a 2-unsubstituted quinazolinone system, ***Tetrahedron Asymmetry***, **10**(1), 1999, 25-29.
267. Kawadkar RK, Ghiya BJ, Synthesis of new quinazoline-4-one compounds medicinal importance, ***Asian J Chem***, **11**(2), 1999, 388-391.
268. Keith S, Hiti EL, Gamal A, Mohamed AF, Mohamed Collect Czech AA, Synthesis of 2-substituted quinazolin-4(3*H*)-ones, ***Chem Commun***, **64**(3), 1999, 515-517.
269. Laurent F, Sylvie Piva-Le Blanc, Novel synthesis of oxindole quinazolines using solid phase multiparallel chemistry, ***Tetrahedron Lett***, **40**(20), 1999, 3881-3884.
270. Reddy PSN, Vasantha T, Nagaraju Ch, 4-Heteryl- β -lactams; A facile synthesis of 1-aryl-4[isopropylideneamino/methyl-4(3*H*)-oxoquinazolin-2-yl]azetid-2-ones, ***Indian J Chem***, **38**(B), 1999, 40-44.
271. Bhardwaj V, Gupta VN, Suri OP, A new synthesis of 11*H*-pyrido [2,1-*b*] quinazolin-11-ones, ***Indian J Heterocycl Chem***, **8**(3), 1999, 173-176.
272. Rajesh Bahekar H, Raghu Rama Rao A, New bronchodilators-3: synthesis of benzimidazo[1,2-*c*]-6(5*H*)-

- ones and their thioanalogs, *Indian J Heterocycl Chem*, **8**(3), 1999, 225-226.
273. Mohammad Khajavi S, Kurosh rad-moghadem, Hasan Hazarkhani, synthesis of 6-substituted benzimidazo [1,2-c] quinazolines under microwave irradiation, *Syn Commun*, **29**(15), 1999, 2617-2624.
274. Ji Wang C, Jir Chun L, Hua Mei L, Fong Chi C, Cyril U, substituted-4-oxo-quinazolines, *Chim Pharm J (Taipei)*, **51**(1), 1999, 31-34.
275. Jorg Wuckelt, Manfred Doring, Rainer Beckert, Peter Langer, Efficient synthesis of quinazolines-4-ones and axially chiral 2,2'-bisquinazolin-4-ones by reaction of anthranilic acid derived nucleophiles with oxalic acid-bis(imidoyl)chlorides, *Syn lett*, **(7)**, 1999, 1100-1102.
276. El-Tombary AA, Ismail KA, Aboulwafa OM, Omar AM, EL-Azzovni MZ, EL-Mansoury ST, Novel[4,3-a]quinazolines and bis-triazolo[4,3-a:4,3'-c]quinazolines: synthesis and antitoxoplasmosis effect, *Farmaco*, **54**(7), 1999, 486-495.
277. Mamoru K, Takashi T, Haruki S, thermal ring contraction of 1,4-benzodiazepines into quinazolines, *Heterocycles*, **51**(10), 1999, 407-412.
278. Sharma SC, Zutshi U, Dhar KL, Synthesis elucidation of two more metabolites of 7,8,9,10-tetrahydroazepino-[2,1-

- b]quinazolin-12(6*H*)-one, a potent bronchodilator Part-II, ***Indian J Chem*, 38(B)**, 1999, 814-817.
279. Spirkova K, Stankovsky S, Mrvova A, Cipak L, Synthesis of 2-morpholinomethyl-3-substituted quinazolin-4(3*H*)-ones, ***Chem Pap*, 53(4)**, 1999, 272-275.
280. Mohamed A Abdo, Ibrahim F Zeid, El-Hiti, Gamal A, Olfat E. Mahmoud, Some reactions of 2-phenyl-4(3*H*)-quinazolinones, ***Indian J Chem*, 38(B)**, 1999, 850-853.
281. Strakov Ya A, Tonkikh NN, Palitis EL, Patrova MV, Avotins FM, Synthesis and reactions of 3-(6-amino-2-pyridyl)-2-methyl-4(3*H*)-quinazolinone, ***Chem Heterocycl Compd*, 35(6)**, 1999, 752-754.
282. Ramana DV, Sundaram N, Eswara yuvaraj T, Babu E, Ganesh babu B, Mass spectrometer as a probe in the synthesis of 2-substituted-4(3*H*)-quinazolinones, ***Indian J Chem*, 38(B)**, (8), 1999, 905-908.
283. Abderrahim R, Benkhoud ML, Reccer B, Synthesis of certain analogs of substituted triazolo quinazolines, ***J Soc Alger Chim*, 9(2)**, 1999, 159-164.
284. Wolf-Diethard pfeiffer, Annemarie Hetzheim, Pavel Pazdera, Anja Bodtke, Jana Mucke, Synthesis and reactivity of 1,2,4-triazolo[1,5-*c*]quinazolines, ***J Heterocycl Chem*, 36(5)**, 1999, 1327-1336.

285. Bertelli L, Biagi G, Giorgi I, Livi O, Manera C, Scartoni V, Lucacchini A, G. Giannaccini, Barili PL, Substituted 1,2,3-triazolo[1,5-a]quinazolines: Synthesis and binding to benzodiazepine and adenosine receptors, ***Eur J Med Chem***, **35**(3), 2000, 333-41.
286. Lucacchini A, Giannaccini G, Barili PL, Bertelli L, Biagi G, Giorgi I, Livi O, Manera C, Scartoni V, Substituted 1,2,3-triazolo[1,5-a]quinazolines: Synthesis and binding to benzodiazepine and adenosine receptors, ***Eur J Med Chem***, **35**(3), 2000, 333-41.
287. Noriko Mori, Masayuki Kaneko, Yuichi Torii, Toshiya Takahashi, Takayuki Imaoka, Koh Tanida, Preparation of triaziquinazoline derivatives and analogs as chemokine inhibitors, ***PCT Int Appl***, Wo 0034278 (Cl. Co7D471/04) 15 June 2000; Jp Appl. 1998/361862, 4 Dec 1998, 136, ***Chem Abst***, **133**(4), 2000, 43529m, 715.
288. Szczepankiewicz W, Sunwinski J, One-pot synthesis of 3-(2-cyanophenyl)quinazolines-4(3H)-ones, ***Chem Heterocycl Compd***, **36**(7), 2000, 809-810.
289. Wojciech Szczepankiewicz, Jerzy Sunwinaski, Robert Bujok, Synthesis of 4-arylaminoquinazolines and 2-aryl-4-arylaminoquinazolines from 2-aminobenzonitrile anilines and formic acid of benzaldehydes, ***Tetrahedron***, **56**(47), 2000, 9343-9349.

290. Patel RB, Patel NB, Patel SK, Patel KC, synthesis and pharmacological activity of 2-methyl-3-(2-methylphenyl)-6-arylazo quinazolin-4(3*H*)-ones and its derivatives, ***Orient J Chem***, 16(2), 2000, 305-309.
291. Pavel Hradil, Lubomir Kvapil, Jan Hlavac, Tomes Weidlich, Antonin Lycka, Karel Lemr, Preparation of 2-phenyl-2-hydroxymethyl-4-oxo-1,2,3,4-tetrahydroquinazolin and 2-methyl-4-oxo-3,4-dihydroquinazoline derivatives formation, ***J Heterocycl Chem***, 37(4), 2000, 831-837.
292. Ali Hussein M, Mostafa Azza A, Maher El-Zohry F, Synthesis and bioactivity of *o*-ethyl phosphrodiamidates derived from quinazolin-4-ones and either amino acid ester of fatty amines, ***Heteroatom Chem***, 11(3), 2000, 249-252.
293. Aleem Gangjee, Mohit Kothare, Roy Kisliuk L, The synthesis of novel nonclassical reversed bridge quinazolines antifolates as inhibitors of thymidylate synthase, ***J Heterocycl Chem***, 37(5), 2000, 1097-1102.
294. Abdugafurov A, Muzaffarov AA, Madikhanov N, Shakhidoyatov Kh. M, Makhsumov AG, Synthesis of 1-Phenyl-4-(2-*R*-quinazol-4-one-3-yl)methyl-1,2,3-triazoles, ***Zh Prikl Khim***, 73(3), 2000, 462.
295. Benedicte Erb, Rufine Akue, Benoit Rigo, Bernard Pirotte, Daniel Couturier, Synthesis of 2-aminoquinazoline-4(3*H*)

- one derivatives as potential potassium channel openers, **J Heterocycl Chem**, **37**(2), 2000, 253-260.
296. Petra marinko, Ales obreza, Lucijia peterlin masic, Ales Krbacic, Danijel Kikeli, Synthesis of 2-amino-7,8-dihydro-6(5*H*)-quinazolinone, 2,4-diamino-7,8-dihydro-6(5*H*)-quinazolinone, 5,6,7,8-tetrahydro-2,6-quinazoline-diamine and 5,6,7,8-tetrahydro-2,4,6-quinazolinetriamine derivatives, **J Heterocycl Chem**, **37**(2), 2000, 405-409.
297. Anette Witt, Jan Bergman, Synthesis and reactions of some 2-Vinyl-3*H*-quinazoline-4-ones, **Tetrahedron**, **56**(37), 2000, 7245-7253.
298. Lopez Simon E, Rosales Monica, Urdaneta Neudo, Godoy Valentina M, Charris Jaime E, The synthesis of substituted 2-aryl-4(3*H*)-quinazolinones using NaHSO₃/DMA. Steric effect upon the cyclisation-dehydrogenation step, **J Chem Research**, **31**(43), 2000, 258-259.
299. Hiti EL, Gamal A, Synthesis and characterization of some substituted quinazolin-4(3*H*)-ones, **Heterocycles**, **53**(8), 2000, 1839-44.
300. Helmuth tietz, Otto rademacher, Gernot zahn, Novel isocyanate-The formation and structure of unexpected cycloadducts, **Eur J Org Chem**, **2000**(11), 2000, 2105-2112.

301. Van muijlwijk-Koezen JE, Timmerman H, Van der Goot H, Menge H, Von drabbe kunzel J, de groote M, Ijzerman AP, Isoquinazoline and quinazolines urea analogues as antagonists for the human adenosine A(3) receptor, **J Med Chem**, **43**(11), 2000, 2227-2238.
302. Julio A seijas, Pilar Vazquez-Tato M, Montserrat Martinez, Microwave enhanced synthesis of 4-aminoquinazolines, **Tetrahedron Lett**, **41**(13), 2000, 2215-2217.
303. Ming Wu D, Gui Ping Z, Synthesis of 2-substitutedamino-3-(substitutedphenyl)quinazolin-4(3H)-ones, Jie T, **Synth Commun**, **30**(9), 2000, 1599-1603.
304. Jun Min H, Chen M, Yu R, Synthesis of α -thiocarbonyl phosphoric acid derivatives, **Gaodeng Xuexiao Huexiao Xuebao**, **21**(8), 2000, 1216-1219.
305. Hiyoshizo kotsuki, Hiromitsu Sakai, Hanae morimoto, Hitoshi suenaga, A new quinazolines synthesis, **Synl ett**, **12**, 1999, 1993-1995.
306. Javad azizian, Morteza mehrdad, Khaosrow Jadidi, Yaghob Sarra, Rearrangement of 4-imino-(1H,4H)-3,1-benzoxazine-2-ones to 2,4-quinazolinediones via an isocyanate carboxamide intermediate, **Tetrahedron Lett**, **41**, 2000, 5265-5268.

307. Tonkikh NN, Strakov A Ya, Petrova MV, 2-Substituted-5-oxo-5,6,7,8-tetrahydroquinazolines, **Chem Heterocycl Compd**, **36**(2), 2000, 174-177.
308. Sahadeva Reddy D, Pratap Reddy P, Reddy PSN, Synthesis of iodolylquinazolinone: A novel bisazaheterocycle, **Synthesis**, (9), 2000, 1217-1218.
309. Takumi Mizuno, Noriaki Okamoto, Takatoshi Ito, Toshiyuki Miyata, Synthesis of quinazolines using carbon dioxide (or carbon monoxide with sulphur) under mild conditions, **Heteroatom Chem**, **11**(6), 2000, 428-433.
310. Wojciech Zielinski, Agnieszka Kudelko, Synthesis and basicity of 4-amino-2-phenylquinazolines, **Monatsh Chemie monthly**, **131**(8), 2000, 895-899.
311. Cyril Parkanyi, Duran S, Schmidt, Synthesis of 5-chloro-2-methyl-3(5-methylthiazol-2-yl)-4(3H)quinazolinone and related compounds with potential biological activity, **J Heterocycl Chem**, **37**(4), 2000, 725-729.
312. Srivastava MK, Arvind R, Trivedi KM, Synthesis and characterization of some 3-Amino-alkyl/aryl-3,4-dihydro-4-oxoquinazolines and their acyl derivatives, **Asian J Chem**, **12**(1), 2000, 243-246.
313. Varano F, Catarzi D, Colotta V, Filacchioni G, Galli A, Costagli C, Carla V, Synthesis and biological evaluation of a

- new set of pyrazolo[1,5-c]quinazolines-2-carboxylates as novel excitatory amino acid antagonists, **J Med Chem**, **45**(5), 2002, 1035-44.
314. Colotta V, Catarzi D, Varano F, Filacchioni G, Martini C, Trincavelli L, Lucacchini A, Synthesis of 4-amino-6-(hetero)arylalkylamino-1,2,4-triazolo[4,3-a]quinoxalin-1-one derivatives as potent A(2A) adenosine receptor antagonists, **Bioorg Med Chem**, **11**(24), 2003, 5509-18.
315. Manmohan Reddy L, Pratap Reddy P, Reddy PSN, Synthesis of a new heterocycle, 1*H*-4-aryl[1,2,4]-oxadiazino[5,4-*b*]quinazolinone, **Indian J Chem**, **42 B**, 2003, 2119-2121.
316. Gangual NA, Narasimhan B, Mourya VK, Dhake AS, Synthesis and QSAR studies of ortho substituted-4(3*H*)quinazolinones, **Indian J Heterocycl Chem**, **12**, 2003, 201-205.
317. Manmohan Reddy L, Pratap Reddy P, Reddy PSN, Synthesis of bismethaqualone, bismecloqualone and bispriqualone analogues **Indian J Heterocycl Chem**, **13**, 2003, 01-05.
318. Kant P, Saksena RK, Synthesis and antimicrobial activity of some new 2-phenyl-3-*p*-(2'-methyl-3'-aryl-4'-oxo-thiazolin-2'-yl)phenyl quinazolin-4-ones and phenyl-3-*p*-(1'-aryl-3'-phthalimido-4'-methylazetidino-2'-one-2'-yl)phenyl

- quinazolin-4-ones, *Indian J Heterocycl Chem*, **12**, 2003, 315-318.
319. Balo C, Lopez C, Brea JM, Fernández F, Caamano O, synthesis and evaluation of adenosine antagonist activity of a series of [1,2,4]triazolo[1,5-c]quinazolines, *Chem Pharm Bull*, **55**(3), 2007, 372-75.
320. Selvam T, Theivendren P, Kumar VP, Synthesis, characterization and anthelmintic activity of 6,7,8,9-tetrahydro-5H-5-phenyl-benzylidene-3-substituted hydrazine-thiazolo-(2,3-b)quinazolines derivatives and analogues, *Drug Discov Ther*, **4**(6), 2010, 392-398.
321. Saravanan G, Alagarsamy V, Prakash C, Synthesis and evaluation of antioxidant activities of novel quinazolinone derivatives, *Int J Pharmacy and Pharma Sci*, **2 (Suppl. 4)**, 2010, 83-86.
322. Simons KJ, Benedetti MS, Simons FER, Gillard M, Baltws, Relevance of H₁ receptor occupancy to H₁-antihistamine dosing in children, *J Allergy Clin Immunol*, **119**, 2007, 1551-1554.
323. Carr AA, Meyer DR, Synthesis of terfenadine, *ArzneimForschung*, **32(9a)**, 1982, 1157-1159.
324. Hopp RJ, Bewtra A, Nair NM, Townley RG, The effect of age on methacholine response, *J Allergy Clin Immunol*, **76**, 1985, 609-613.

325. Rao AR and Reddy VM, Synthesis and H₁-antihistaminic activity of beta-alkoxyethyl and beta-(N,N-dialkylamino)ethyl-(3-aryl-3,4-dihydro-4-oxoquinazolin-2-yl) ethyl ether, **Pharmazie**, **47**, 1992, 794-796.
326. Buyuktimkin, Buyuktimkin N, Ozdemir O, Rollas S, Synthesis of 3-[2-(2,3-dihydro-5-phenyl-4-substituted-3H-1,2,4-triazole-3-thione-2-yl)-acetylamino]-2-methyl-4(3H)-quinazolinones and their pharmacological activities, **Arch Pharm**, **322**, 1989, 49-51.
327. Misawa M, Omori S, Yanaura S, Synthesis of some substituted quinazoline as antiinflammatory activity, **J Soc Alger chim**, **36**, 1986, 647-650.
328. Alagarsamy V, Venkatesaperumal R, Vijaya Kumar S, Angayarkanni T, Pounammal P, Senthilganesh S, Kandeegan S, Synthesis and pharmacological investigation of some novel 2-phenyl-3-(substituted methyl amino)quinazolin-4(3H)-ones as H₁-receptor blockers, **Pharmazie**, **57**, 2002, 306-307.
329. Alagarsamy V, **Pharmazie**, Synthesis and pharmacological investigation of some novel 2-methyl-3-(substituted methylamino)-(3H)-quinazolin-4-ones as histamine H₁-receptor blockers, **59**, 2004, 753-755.
330. Alagarsamy V, Solomon VR, Murugan M, Synthesis and pharmacological investigation of novel 4-benzyl-1-substituted-4H-[1,2,4]triazolo[4,3-a]quinazolin-5-ones as

- new class of H₁-antihistaminic agents, *Bioorg Med Chem*, **15**, 2007, 4009-4015.
331. Van Arman CG, Miller LM, O'Malley MP, A catecholamine bronchodilator and hyperglycemic agent, *J Pharmacol Exp Ther*, **133**, 1961, 90-97.
332. Dews PB, The measurement of the influence of drugs on voluntary activity in mice, *J Pharmacol*, **8**, 1953, 46-48.
333. Kuhn WL, Van Maanen EF, Central nervous system effects of thalidomide, *J Pharmacol Exp Ther*, **134**, 1961, 60-68.