The following methods have been reported for the estimation of Pioglitazone, Rosiglitazone, Metformin, Repaglinide & Glimpiride are given below:

- Khedekar PB et al (2010) have reported the Application of vierodt’s and absorption correction spectrophotometric methods for estimation of rosiglitazone maleate and glimepiride in tablets.
- Ramulu K et al (2010) have reported the Identification, isolation and characterization of potential degradation products in pioglitazone hydrochloride drug substance.
- Sharma S et al (2010) have reported the Study of stressed degradation behavior of pioglitazone hydrochloride in bulk and pharmaceutical formulation by HPLC assay method.
- Hamdan II et al (2010) have reported the Development and validation of a stability indicating capillary electrophoresis method for the determination of metformin hydrochloride in tablets.
- Agrawal Y et al (2010) have reported the A supercritical fluid chromatography/tandem mass spectrometry method for the simultaneous quantification of metformin and gliclazide in human plasma.
- Lakshmi KS et al (2009) have reported the Simultaneous determination of metformin and pioglitazone by Reversed phase HPLC in pharmaceutical dosage forms.
- Shirkhedkar AA et al (2009) have reported the Application of a stability-indicating densitometric RP-TLC method for analysis of pioglitazone hydrochloride in the bulk material and in pharmaceutical formulations.
- Tahmasebi E, et al (2009) have reported the Extraction of trace amounts of pioglitazone as an anti-diabetic drug with fiber liquid phase microextraction and determination by high performance liquid chromatography ultraviolet decetion in biological fluids.
Rathinavel G et al\textsuperscript{35}. (2009) have reported the RP-HPLC method for the Simultaneous estimation of rosiglitazone and gliclazide in Tablets.


Arayne MS, et al\textsuperscript{37}. (2009) have reported the Spectrophotometric quantitation of Metformin in bulk drug and pharmaceutical formulation using Multivariate technique.

Sengupta P, et al\textsuperscript{38}. (2010) have reported the LC-MS-MS Development and validation for Simultaneous Quantititation of Metformin,Glimepiride and Pioglitazone in human plasma and its application to a Bioequivalence study.

Sadaf Sayed, et al\textsuperscript{39}. (2009) have reported the Simultaneous estimation of pioglitazone and metformin hydrochloride in tablet dosage form along with invitro studies.

Rimawi FA et al\textsuperscript{40}. (2009) have reported the Development and validation of an analytical method for metformin hydrochloride and its related compound (1-cyanoguanidine) in tablet formulations by HPLC-UV.

Meeta AJ et al\textsuperscript{41}. (2009) have reported the Estimation of Repaglinide In bulk and tablet dosage forms by HPTLC Method.

Rani P et al\textsuperscript{42}. (2009) have reported the Determination of Repaglinide in pharmaceutical formulations by RP-HPLC method.

Khan IU et al\textsuperscript{43}. (2009) have reported the Determination of Glimepiride in Pharmaceutical Formulations Using HPLC and First-Derivative Spectrophotometric Methods.

Karthik A et al\textsuperscript{44}. (2008) have reported the Simultaneous determination of pioglitazone and glimepiride in bulk drug and pharmaceutical dosage form By RP-HPLC method.

Kolte BL et al\textsuperscript{45}. (2008) have reported the Simultaneous estimation of metformin hydrochloride, pioglitazone hydrochloride, and glimepiride by RP-HPLC in Tablet Formulation.
o Chaturvedi PK et al\textsuperscript{46}, (2008) have reported the Simultaneous Spectrophotometric estimation and validation of three component tablet formulation containing pioglitazone hydrochloride, metformin hydrochloride and glibenclamide.

o Mostafa G AE et al\textsuperscript{47}, (2008) have reported the Characteristics of new composite and classical potentiometric sensors for the determination of pioglitazone in some pharmaceutical formulations.

o Beniwal PK et al\textsuperscript{48}, (2008) have reported the Spectrophotometric estimation of pioglitazone hydrochloride in tablet dosage form.

o Ismail et al\textsuperscript{49}, (2008) have reported the Simultaneous determination of Aspirin, Atorvastatin and Pioglitazone in capsule dosage form.

o Sahoo PK et al\textsuperscript{50}, (2008) have reported the Simultaneous estimation of Metformin hydrochloride and Pioglitazone by hydrochloride RP-HPLC method from combined tablet dosage form.

o Saber Lotfy AMR et al\textsuperscript{51}, (2008) have reported the Determination of Pioglitazone hydrochloride in tablets by High Performance Liquid chromatography.

o Grace O et al\textsuperscript{52}, (2008) have reported the An improved LC–ESI–MS–MS method for simultaneous quantitation of rosiglitazone and N-desmethyl rosiglitazone in human plasma.

o Jinger JN et al\textsuperscript{53}, (2008) have reported the Development and validation of LC-UV for simultaneous estimation of Rosiglitazone and Glimepiride in human plasma.

o Bhatia NM et al\textsuperscript{54}, (2008) have reported the Derivative Spectrophotometric estimation of Metformin Hydrochloride and Rosiglitazone Maleate.

o Valentina P et al\textsuperscript{55}, (2008) have reported the HPLC-UV determination of metformin in human plasma for application in pharmacokinetics and bioequivalence studies.

o Chaturvedi PK et al\textsuperscript{56}, (2008) have reported the Development and Validation of and RP-HPLC method for Simultaneous analysis of a three- component tablet
formulation Containing Metformin hydrochloride, Pioglitazone hydrochloride and Glibenclamide.

- Pawar SP et al\textsuperscript{57}, (2008) have reported the Simultaneous LC estimation of Glimepiride immediate release and Metformin sustained release tablets.
- Wanjari MM et al\textsuperscript{58}, (2008) have reported the Rapid and Simple RP-HPLC Method for the Estimation of Metformin in Rat Plasma.
- Jain D et al\textsuperscript{59}, (2008) have reported the Simultaneous estimation of Metformin hydrochloride, Pioglitazone hydrochloride, and glimepiride by RP-HPLC in tablet formulation.
- Bansal G et al\textsuperscript{60}, (2008) have reported the LC–UV–PDA and LC–MS studies to characterize degradation products of Glimepiride.
- Jain R et al\textsuperscript{61}, (2008) have reported the Study of Simultaneous Equation and Partial Simultaneous Equation Methods for the Spectrophotometric Estimation of Rosiglitazone Maleate and Glimepiride in Tablets.
- Ravindra N et al\textsuperscript{62}, (2008) have reported the Spectrophotometric Estimation of Glimepiride from Pharmaceutical Dosage Forms.
- Goyal A et al\textsuperscript{63}, (2007) have reported the Simultaneous spectrophotometric estimation of rosiglitazone maleate and Glimepiride in tablet dosage form.
- Wang M et al\textsuperscript{64}, (2007) have reported the Multi-component plasma quantitation of anti-hyperglycemic pharmaceutical compounds using liquid chromatography–tandem mass spectrometry.
- He J et al\textsuperscript{65}, (2007) have reported the Sensitive and selective liquid chromatography–mass spectrometry method for the quantification of rosiglitazone in human plasma.
- Wahed M II et al\textsuperscript{66}, (2007) have reported the Simultaneous High-performance Liquid Chromatographic Determination of Metformin Hydrochloride and Rosiglitazone Maleate in Pharmaceutical-dosage Form. Research
- Zhang L et al\textsuperscript{67}, (2007) have reported the Simultaneous determination of metformin and rosiglitazone in human plasma by liquid chromatography/tandem mass spectrometry with electrospray ionization: application to a pharmacokinetic study.
Mistri HN et al\textsuperscript{68}, (2007) have reported the Liquid chromatography tandem mass spectrometry method for simultaneous determination of antidiabetic drugs metformin and glyburide in human plasma.

Tian JX et al\textsuperscript{69}, (2007) have reported the Catalytic action of copper (II) ion on electrochemical oxidation of metformine and voltammetric determination of metformine in pharmaceuticals.

Wang M et al\textsuperscript{70}, (2007) have reported the Multi-component plasma quantitation of anti-hyperglycemic pharmaceutical compounds using liquid chromatography–tandem mass spectrometry.

Rane VP et al\textsuperscript{71}, (2007) have reported the A Validated Chiral LC Method for the Enantiomeric Separation of Repaglinide on amylose based stationary phase.

Ruzilawati AB et al\textsuperscript{72}, (2007) have reported the Method development and validation of repaglinide in human plasma by HPLC and its application in pharmacokinetic studies.

Patel JR, et al\textsuperscript{73}, (2007) have reported the Simultaneous spectrophotometric estimation of Metformin and Repaglinide in a synthetic mixture.

Thomas A et al\textsuperscript{74}, (2007) have reported the Simultaneous Spectrophotometric Estimation of Pioglitazone, Metformin HCl and Glimepiride in Bulk and Formulation.

Jing Y et al\textsuperscript{75}, (2007) have reported the Development of a RP-HPLC method for screening potentially counterfeit anti-diabetic drugs.

Bhavesh D et al\textsuperscript{76}, (2007) have reported the estimation and pharmacokinetics of metformin in human volunteers.


Sripalakit P et al\textsuperscript{78}, (2006) have reported the High-performance liquid chromatographic method for the determination of pioglitazone in human plasma using ultraviolet detection and its application to a pharmacokinetic study.
Pattana S et al\textsuperscript{79}, (2006) have reported the High performance liquid chromatographic method for the determination of pioglitazone in human plasma using ultraviolet decetion and its application to a pharmacokinetic study.

Gomes P et al\textsuperscript{80}, (2006) have reported the First-Derivative Spectrophotometry in the Analysis of Rosiglitazone in Coated Tablets.

Berecka A et al\textsuperscript{81}, (2006) have reported the Development and Validation of a New High-Performance Liquid Chromatography method for the determination of Gliclazide and Repaglinide in Pharmaceutical Formulations.


Shanker MB et al\textsuperscript{83}, (2005) have reported the Estimation of Pioglitazone Hydrochloride and Metformin Hydrochloride in Tablets by Derivative Spectrophotometry and Liquid Chromatographic Methods.

Cheandna S et al\textsuperscript{84}, (2005) have reported the Simultaneous spectrophotometric determination of pioglitazone hydrochloride and Glimepiride tablets.

Wanjari DB et al\textsuperscript{85}, (2005) have reported the Stability indicating RP-HPLC method for determination of pioglitazone from tablets.

Pedersen RS et al\textsuperscript{86}, (2005) have reported the HPLC Method for Determination of Rosiglitazone in Plasma.

Nozomu K et al\textsuperscript{87}, (2005) have reported the Development and validation for high selective quantitative determination of metformin in human plasma by cation exchanging with normal-phase LC/MS/MS.

AbuRuz S et al\textsuperscript{88}, (2005) have reported the Development and validation of liquid chromatography method for the simultaneous determination of metformin and glipizide, gliclazide, glibenclamide or glimperide in plasma.

Gumieniczek A et al\textsuperscript{89}, (2005) have reported the Quantitative Analysis of Repaglinide in Tablets by Reversed-Phase Thin-Layer Chromatography with Densitometric UV Detection.

Sankar DG et al\textsuperscript{90}, (2005) have reported the UV Spectrophotometric determination of Clopidogrel and Repaglinide.
Sankar DG et al., (2005) have reported the 1,10-Phenathroline as an analytical reagent for the estimation of Cefepime and Repaglinide.

Khabbaz LR et al., (2005) have reported the A Simple and Sensitive Method for Determination of Glimepiride in Human Serum by HPLC.

Khan MA et al., (2005) have reported the LC determination of glimepiride and its related impurities.

Sane RT et al., (2004) have reported the Simultaneous Determination of Pioglitazone and Glimepiride by High-Performance Liquid Chromatography.

Jedlicka A et al., (2004) have reported the Reversed-phase HPLC methods for purity test and assay of pioglitazone hydrochloride in tablets.

Gomes P et al., (2004) have reported the Determination of rosiglitazone in coated tablets by MEKC and HPLC methods.

Katja H et al., (2004) have reported the Fast liquid chromatographic-tandem mass spectrometric (LC–MS–MS) determination of metformin in plasma samples.

Petra KI et al., (2004) have reported the HPLC study of glimepiride under hydrolytic stress conditions.


Song YK et al., (2004) have reported the Determination of glimepiride in human plasma using semi-microbore high performance liquid chromatography with column-switching.


Xue YJ et al., (2003) have reported the Quantitative determination of pioglitazone in human serum by direct-injection high-performance liquid chromatography mass spectrometry and its application to a bioequivalence study.

Kolte BL et al., (2003) have reported the Liquid chromatographic method for the determination of rosiglitazone in human plasma.

Zarghi A et al., (2003) have reported the Rapid determination of metformin in human plasma using ion-pair HPLC.

Lad NR et al., (2003) have reported the Concurrent assay of metformin and glimepiride in tablets using RP-HPLC with wave length programming.

Habib I HI et al., (2003) have reported the Near infra-red reflectance spectroscopic determination of metformin in tablets.

Reddy Krishna KVSR et al., (2003) have reported the Impurity profile study of repaglinide.

Gandhimathi M et al., (2003) have reported the Determination of repaglinide in pharmaceutical formulations by HPLC with UV detection.

Radhakrishna T et al., (2002) have reported the Determination of pioglitazone hydrochloride in bulk and pharmaceutical formulations by HPLC and MEKC methods.

Radhakrishna T et al., (2002) have reported the LC determination of rosiglitazone in bulk and pharmaceutical formulation.

Ching CL et al., (2001) have reported the Determination of metformin in human plasma by high-performance liquid chromatography with spectrophotometric detection.

Vasudevan M et al., (2001) have reported the Ion pair liquid chromatography technique for the estimation of Metformin in its multi component dosage form.

Sacide A et al., (2001) have reported the Analysis of glimepiride by using derivative UV spectrophotometric method.

Kah HY et al., (1998) have reported the Simple high-performance liquid chromatographic method for the determination of metformin in human plasma.

Yamashita K et al., (1996) have reported the High-performance liquid chromatographic determination of pioglitazone and its metabolites in human serum and urine.
Zhong WZ et al\textsuperscript{17}, (1996) have reported the Simultaneous quantitation of pioglitazone and its metabolites in human serum by liquid chromatography and solid phase extraction.