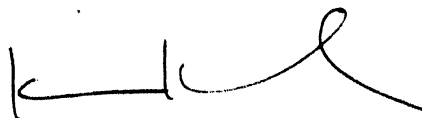


CERTIFICATE

We certify that this thesis has been composed by Mr. K. Venkatachala Rao based on investigations carried out by him at the Liquid Crystals Laboratory, Raman Research Institute, Bangalore, under our supervision. The subject matter of this thesis has not previously formed the basis of the award of any degree, diploma, associateship, fellowship or other similar title.



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