

Dean's office of the Faculty of Chemical Technology
Studentská 573
Pardubice
53210

Subject: Supervisor's assessment

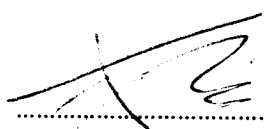
M.Sc. Parmeshwar Solanke has finished his dissertation work entitled "*Synthesis and properties of model push-pull systems based on indane-1,3-dione*" under my supervision at the Institute of Organic Chemistry and Technology. His dissertation comprises of an extensive literature survey of indane-1,3-dione: synthesis, reactivity and mostly modern optoelectronic applications. In the Experimental, the candidate has developed a new reaction pathway towards 4,7-disubstituted indane-1,3-diones, which were subsequently used as starting materials for Knoevenagel condensation and cross-coupling reactions. Despite initial obstacles, he has successfully synthesized and fully characterized sixteen new push-pull chromophores having novel and extraordinary T-shaped arrangement and has evaluated thorough structure-property relationships. The outcomes of his doctoral work were already published as two articles in impacted journals – *Synthesis* and *Eur. J. Org. Chem.*

M.Sc. Solanke has during his doctoral studies evolved into an independent person capable to solve given synthetic tasks and also gained further skills concerning modern organic materials and their applications. He has successfully passed all the required exams, completed the literature search work entitled "*Indane-1,3-dione derivatives as acceptors: Synthesis, modification and applications*" and subsequently passed his state doctoral exam.

According to all these fulfilments, I am glad to

recommend

his dissertation work to be defended at the Faculty of Chemical Technology.



doc. Ing. Filip Bureš, Ph.D.
Institute of Organic Chemistry and Technology
Faculty of Chemical Technology
University of Pardubice
Studentská 573
Pardubice
53210

Statement of Head of Tutorial Workplace for Graduates about Dissertation Thesis of M.Sc. Parmeshwar Solanke

I the undersigned hereby confirm that M.Sc. Parmeshwar Solanke has fulfilled all his obligations and requisites following from study regulations concerning postgraduate studies. The dissertation thesis that he has submitted for defense examination has the following title:

“Synthesis and properties of model push-pull systems based on indane-1,3-dione”

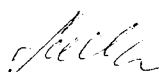
His doctoral adviser is Assoc. Professor Ing. Filip Bureš Ph.D.

Formal aspects of the submitted dissertation thesis are in accordance with the requirements of Article 15 of the present Study and Examination Regulations of the University of Pardubice.

M.Sc. Parmeshwar Solanke is a coauthor of three papers published in international impact factor journals. One paper is thematically different (*J. Phys. Chem. B*) and two papers are thematically connected with the dissertation thesis (*Synthesis* and *Eur. J. Org. Chem.*). These papers submitter presented and discussed as the results of dissertation research at a meeting of Institute of Organic Chemistry and Technology on October 6, 2015.

On the basis of his presentation and the above-mentioned facts **I recommend** the dissertation thesis of M.Sc. Parmeshwar Solanke for the defense examination.

Pardubice, October 6, 2015



prof. Ing. Miloš Sedlák, DrSc.

Head of Institute of Organic Chemistry & Technology