

Poster Presentation

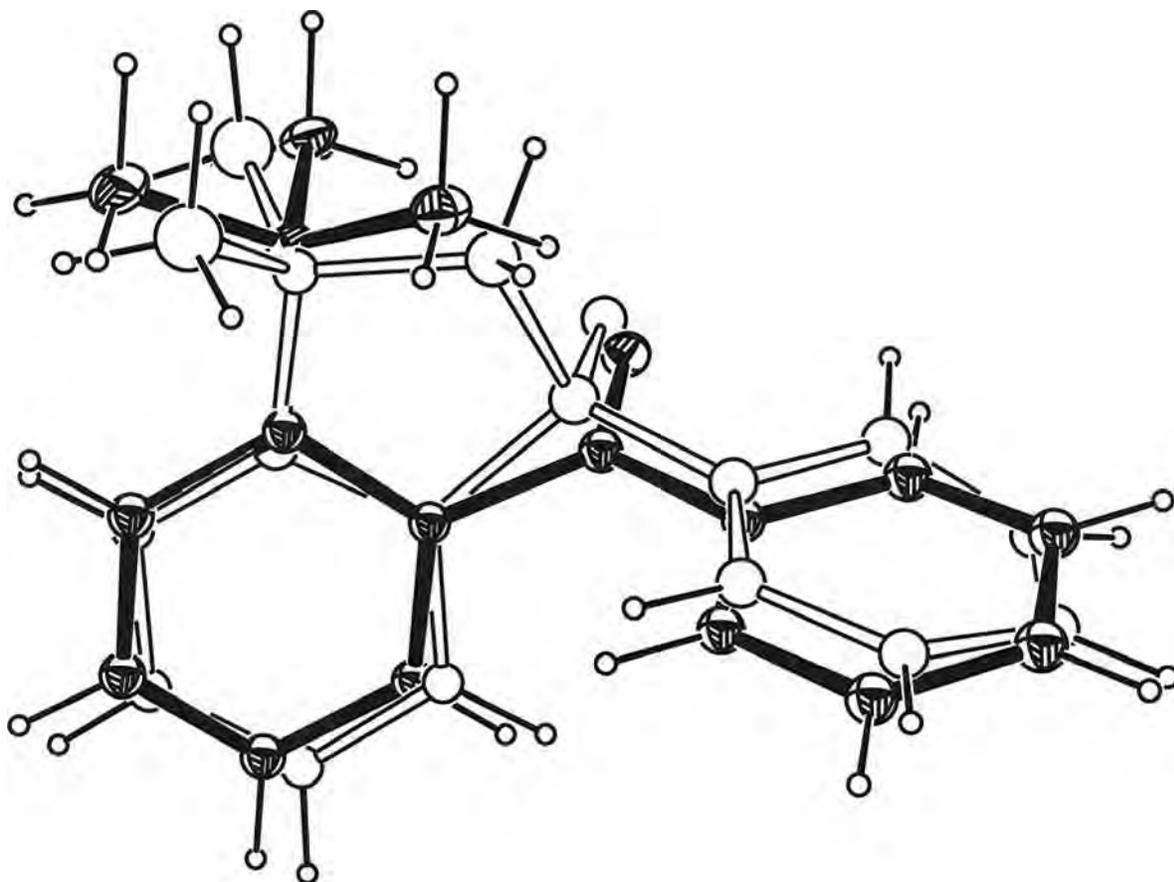
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Structural changes induced in crystals by the photocyclization and high pressure

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Photo-induced processes in crystals studied by means of X-ray structure analysis are the main subject of our interest. In particular, we monitor structural changes brought about by photochemical reactions. Nowadays, we have started to study influence of high pressure on them. In this poster, the results on monitoring structural changes in crystals of 2-tert-butylphenylphenylmethanone proceeding during the photocyclization reaction at ambient and high pressure will be presented. The studies demanded determination of structures of the pure reactant, pure product and many partly reacted crystals (Fig. 1) and were carried out at 0.1 MPa and 0.55, 1.27 and 1.50 GPa. Variations in the cell constants, geometry of the reaction centre and behavior of molecules during the phototransformation at various pressures will be presented. Several differences and similarities were observed. The studies provided knowledge on the path of the reaction in crystals and the influence of external factors, i.e. pressure, on it. Acknowledgments: The work was carried out within the grant 2011/01/D/ST5/02834 financed by the National Science Centre (Poland) and the fellowship co-financed by European Union within European Social Fund (Wroclaw University of Technology, Poland).



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