

Nanostructures and impurity centers in cryogenic environment

Guest Editors Claudine Crépin-Gilbert and Elena Savchenko

<i>Preface</i>	683
<i>Robert Kolos</i> Carbon chain extension processes in cryogenic environments: UV-assisted growth of polyynic nitriles in solidified rare gases (Topical Review)	685
<i>Prudence C.J. Ada Bibang, Aditya N. Agnihotri, Basile Augé, Philippe Boduch, Charles Desfrancois, Alicja Domarucka, Frédéric Lecomte, Bruno Manil, Rafael Martínez, Gabriel S.V. Muniz, Nicolas Nieuwjaer, and Hermann Rothard</i> Ion radiation in icy space environments: synthesis and radioresistance of complex organic molecules (Topical Review)	692
<i>J. Mouzay, C. Assadourian, N. Piétri, T. Chiavassa, and I. Couturier-Tamburelli</i> New possible route of HC ₃ N formation in Titan's atmosphere	701
<i>Lahouari Krim and Mindaugas Jonusas</i> VUV Photolysis of CH ₄ -H ₂ O mixture in methane-rich ices: Formation of large complex organic molecules in astronomical environments	710
<i>Rasa Platakyte, Alejandro Gutiérrez-Quintanilla, Valdas Sablinskas, and Justinas Cekonkus</i> Influence of environment and association with water, to internal structure of trifluoroacetylacetone. Matrix isolation FTIR study	722
<i>A. Vasylieva, I. Doroshenko, O. Doroshenko, and V. Pogorelov</i> Effect of argon environment on small water clusters in matrix isolation	736
<i>A. Gutiérrez-Quintanilla, M. Briant, E. Mengesha, Marc-André Gaveau, J.-M. Mestdagh, B. Soep, and L. Poisson</i> Propyne-water complexes hosted in helium droplets	744
<i>S. Oswald and S. Coussan</i> Chloroform–nitrogen aggregates: upshifted CH and downshifted CCl stretching vibrations observed by matrix isolation and jet expansion infrared spectroscopy	750
<i>C.A.P. da Costa and E.F. da Silveira</i> Valine infrared absorbance at cryogenic temperatures	760
<i>Michal Gil, Alexandr Gorski, Alexander Starukhin, and Jacek Waluk</i> Fluorescence studies of porphycene in various cryogenic environments	767
<i>Yu.A. Dmitriev and N.P. Benetis</i> Trapping mechanism and sites of H and D atoms in solid Ne	774
<i>A.I. Strom, K.L. Fillmore, and D.T. Anderson</i> Hydrogen atom catalyzed ortho-to-para conversion in solid molecular hydrogen	789