

# Electronic and geometric structure of pure and mixed clusters - investigated through Auger and photoelectron spectroscopies

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*Invité par Catalin Miron*

**Vendredi 15 Février à 15h00**  
**Grand Amphi Soleil**

**Abstract :**

**Geometric Structure :**

Mixed clusters of two noble gases have been found to have different radial compositions depending on the production technique. If two gases are adiabatically co-expanded structures close to those expected from equilibrium considerations are attained; by letting an already formed cluster pick-up an additional kind of atoms structures far from equilibrium can be created. How such structures manifest themselves in core level photoelectron spectra will be discussed.

**Electronic Structure :**

Electronic decays of inner valence holes and core holes with delocalized final state valence vacancies in the Ne (Interatomic Coulombic Decay), ammonia and water (Auger) cluster systems are discussed. In the case of pure neon clusters the manifestation of ICD as a life-time broadening in the photoelectron spectrum is detailed. The Auger spectrum of water and ammonia clusters, as well as ammonia solvated in liquid water, contain high kinetic energy features that can be explained by a delocalization of the Auger final state valence holes.

**Formalités d'entrée :** accès libre dans l'amphi du Pavillon d'Accueil. Si la manifestation a lieu dans le Grand Amphi Soleil du Bâtiment Central, merci de vous munir d'une pièce d'identité (à échanger à l'accueil contre un badge d'accès).

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