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【172】 Deposition and imaging of Ar layers on graphite with electron diffraction

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2D-materials represent some of the simplest systems for the study of a variety of different phenomena, including superconductivity magnetism and other phase transitions. A prototypical 2D-system can be constructed depositing a noble gas over a substrate with a weak interaction between the two, such as graphite, to create a tunable layered crystalline structure. In this work we demonstrate how the growth process of Argon layers on graphite can be imaged and controlled using electron diffraction. The phase diagram at low-P low-T is still unknown and making possible its exploration allows us to understand which structures and phases are involved and what mechanism drives the melting process.

Primary author: USAI, Paolo (Ecole Polytechnique Federale de Lausanne)

Co-authors: Mr CLAUDE, Rémi (EPFL); Dr LATYCHEVSKAIA, Tatiana (Paul Scherrer Institut); Dr BENHABIB, Siham (EPFL); Prof. CARBONE, Fabrizio (EPFL)

Presenter: USAI, Paolo (Ecole Polytechnique Federale de Lausanne)

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