Call number	MOSES_022_03
Research project's title	MOlecular Sciences for Earth and Space (MOSES)
Description of the research project	The research program is devoted to the development and application of new theoretical or experimental approaches to study and control complex phenomena in the following areas: (i) Spectroscopy and Chemical Kinetics; (ii) Astrochemistry and astrobiology; (iii) Theoretical and computational chemistry; (iv) Chemistry of the atmosphere and the environment; (v) Natural and anthropogenic eco-sustainable processes. The program can be characterized by a strong multi- and inter-disciplinary approach, mainly focused on the application of computational and/or experimental techniques to study problems in astrochemistry, environmental chemistry or chemistry of the atmosphere. The research regards the description at molecular level of spectroscopic and reactive complex events, including photoinduced ones, both at thermodynamic and far from equilibrium. The theoretical methodologies refer to the quantum-mechanical modeling (including the computational spectroscopy, the molecular and the electronic dynamics), to the data science and the artificial intelligence. Enrolled researchers can strongly collaborate with research groups already involved in research activities at the Scuola Superiore Meridionale, also by teaching courses within the PhD program and/or within the Master and the Degree program (for 'Allievi Ordinari').
S.S.D.	CHIM/02, CHIM/03, CHIM/04, CHIM/06, CHIM/12, FIS/03, FIS/05, ING/IND24
Research areas	Theoretical and computational chemistry, Spectroscopy, Catalysis, Chemical Kinetics, Astrochemistry, Chemistry of the atmosphere
Scientific coordinator	Prof. Vincenzo Barone
Program duration	1 year, renewable up to 3
Salary	€ 35.000
Date of publication on the SSM website of the shortlist and dates of the interviews	28/03/2023
Website for information and notifications to the candidates	https://www.unissme.it/en-us/la-scuola#bandi-e-avvisi http://www.ssm.unina.it/en/postdoctoral-fellowships-calls-and-procedures/