

ERICA MSC-ETN Application form

Please complete and send the form along with your resume and brief statement of interest.

Personal Data

Last Name:			
First Name:			
Date of Birth:			
Gender:	Male	<input type="checkbox"/>	Female

Present address		Present affiliation	
Street / PO box		Institute/Company	
City		Street / PO box	
Postal code		City	
State		Postal code	
Country		State	
e-mail		Country	
Phone (including country code)		Office Phone (including country code)	

Eligibility

Nationality(-ies)		
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Country(-ies) of residence and/or activity during the last five years			
1.	from	to	in
2.	from	to	in
3.	from	to	in

Date of Graduation	
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Education

Most recent Degree		year	
grade			
Institution			
Title of Project			

Main attended undergraduate courses :

	Chemistry		Mineralogy/crystallography
		Physical chemistry	Mechanical engineering
		Inorganic chemistry	Civil engineering
		Organic Chemistry	Mathematics / Modelling
		Analytical Chemistry	Others
	Physics		1
		theoretical	2
		experimental	3

Skills and Expertise

Practical Skills	Basic Expertise in	
NMR-MRI	cement chemistry	
SEM-EDX	concrete technology	
EMPA	solid mechanics	
optical microscopy	fracture mechanics	
XRD	physics of porous materials	
FTIR	thermodynamic of transport phenomena	
XRF	thermodynamics of reaction mechanism	
MIP	concrete degradation	
gas sorption	catalytic reactions	
numerical simulation (e.g. FE method)	steel corrosion	
strength testing	sol-gel reactions	
calorimetry	modeling of material and energy transport	
	modeling of chemical reactions	

Work / Research Experiences

relevant exp 1.	
relevant exp 2.	
relevant exp 3.	

MC-ITN projects

Please tick the projects you are interested in (you may apply for more than one project):

#	Project title		Host institution	Host country
1	Growth and synthesis of hydrates	Position filled	EPFL	CH
2	¹ H NMR relaxation characterisation of hydrates	Position filled	University of Bologna	IT
3	Molecular dynamic simulations of hydrate structure	Position filled	EPFL	CH
4	¹ H NMR characterisation of first sorption cycle	Position filled	University of Bologna	IT
5	Localised NMR measurements of sorption to separate spatio-temporal effects	Position filled	University of Surrey	UK
6	Characterisation of water sorption cycle in hydrates of controlled oxide composition	Position filled	HeidelbergCement	DE
7	Molecular dynamic and Monte Carlo study of water in hydrates during desorption and re-sorption		University of Surrey	UK
8	Multiscale modelling of shrinking C-S-H	Position filled	Technische Universität Wien	AT
9	Upscaling towards applications: Water transport in agglomerates	Position filled	University of Surrey	UK
10	Modelling of hydrate microstructure at the particle size / agglomerate level (microns)	Position filled	EPFL	CH
11	Lattice Boltzmann modelling of water transport in hydrates agglomerates		University of Surrey	UK
12	Multiscale design of engineered C-S-H in dentistry	Position filled	Technische Universität Wien	AT
13	Up-scaling production of controlled hydrates	Position filled	HeidelbergCement	DE