



# PhD in INGEGNERIA DEI MATERIALI / MATERIALS ENGINEERING - 38th cycle

**PARTENARIATO PNRR Research Field: ELECTRODIC MATERIALS AND ELECTROLYTES  
FOR ELETROCHEMICAL ENERGY STORAGE SYSTEMS**

## Monthly net income of PhDscholarship (max 36 months)

**€ 1325.0**

In case of a change of the welfare rates during the three-year period, the amount could be modified.

## Context of the research activity

### Motivation and objectives of the research in this field

CN-MS - CENTRO NAZIONALE DELLA MOBILITA' SOSTENIBILE CUP: D43C22001180001( Decreto di concessione D.D. 1033 del 17/06/2022)  
Decreto direttoriale: Avviso è il Bando, nel vostro caso D. D. 3138 del 12/16/2021 rettificato con D.D. 3175 del 18/12/2021. Avviso pubblico per presentazione Proposte di intervento per il Potenziamento di strutture di ricerca e creazione di "campioni nazionali" di R&S su alcune Key Enabling Technologies da finanziare nell'ambito del Piano Nazionale di Ripresa e Resilienza, Missione 4 Componente 2 Investimento 1.4 Potenziamento strutture di ricerca e creazione di "campioni nazionali" di R&S su alcune Key Enabling Technologies finanziato dall'Unione europea - NextGenerationEU"

The scope of the work is the development of new materials and electrolytes for stationary and electric mobility energy storage. The outcomes of the proposed research aimed to produce electrochemical devices for the storage of energy both for electric cars and for long duration applications.

### Methods and techniques that will be developed and used to carry out the research

The research activities will include the evaluation of new materials and electrolytes for electrochemical energy storage systems. The use of electrochemical techniques and structural/morphological analyses will be part of the



	and structural/morphological analyses will be part of the activities for the evaluation of the device performances. This scenario motivates doctoral multidisciplinary research in the field of energy storage. The proposed research will gain from knowledge coming from various disciplines, from material science to chemistry, from electrochemical processes to energy management, answering to the needs of innovation and new expertise and skills for into the energy storage as strategic area for our country.
<b>Educational objectives</b>	<p>The educational aims are:</p> <ol style="list-style-type: none"> <li>1. amplify supported PhD research experience and favour co-operative research experience at possible partners;</li> <li>2. elevate the educational experience by creating a highly-visible center for electrochemical energy storage technology.</li> </ol>
<b>Job opportunities</b>	The introduction of new materials, electrolytes and design in energy storage technology will implement the number of applications of these devices. Job opportunities for an expert PhD in this field are expected in the private and academic sector.
<b>Composition of the research group</b>	1 Full Professors 1 Associated Professors 3 Assistant Professors 8 PhD Students
<b>Name of the research directors</b>	Prof. Luca Magagnin

<b>Contacts</b>
Email: <a href="mailto:luca.magagnin@polimi.it">luca.magagnin@polimi.it</a> <a href="http://www.cmic.polimi.it/en/ricerca/elenco-gruppi-di-ricerca/seelab/">www.cmic.polimi.it/en/ricerca/elenco-gruppi-di-ricerca/seelab/</a>

<b>Additional support - Financial aid per PhD student per year (gross amount)</b>	
<b>Housing - Foreign Students</b>	--
<b>Housing - Out-of-town residents (more than 80Km out of Milano)</b>	--



Scholarship Increase for a period abroad	
Amount monthly	662.5 €
By number of months	6

**Additional information: educational activity, teaching assistantship, computer availability, desk availability, any other information**

**The candidate will have to fill in a mandatory questionnaire in order to close the application**

**Individual budget for research** (during the 3 years): about 5.400 euro

**Teaching assistantship:** availability of funding in recognition of supporting teaching activities by the PhD student. There are various forms of financial support for activities of support to the teaching practice. The PhD student is encouraged to take part in these activities within the limits allowed by the regulation.