

Projects

International projects:

- PHC TOUBKAL: SAPHIR, Stabilisation par des phosphites d'interfaces métal/(BH4) argyrodite/oxyde pour batteries li-ion tout-solide (2021-2024).
- PF 7 EuroSunMed: Research cooperation and knowledge creation in the area of renewable energy with Mediterranean partner countries" CSP, PV and Grid (GA n°608593) **(2013-2017)**
- Erasmus+ MEDSOL Project: Higher Education- International Capacity Building (Application Title: Strengthening Capacities of South-Mediterranean Higher Education Institutions in the Field of Solar Energy by Enhancing Links among Applied Research, Business, and Education/ MEDSOL),(Application reference number: 573722-EPP-1-2016-1-FR-EPPKA2-CBHE-JP) **(2016-2019)**
- RISE Infinite Cell: International cooperation for the development of cost-eFficieNt kesterITE/silicon next generation tandem solar CELLS (GA n° 777968) **(2017-2021)**
- H2020 CoSt redUction and enhanced PERformance of PV systems Super PV (GA 792245) **(2018-2022)**

National projects:

- PPR 1: UM5R (Morocco)- INRS (Canada) Elaboration of CZTS thin films by pulsed laser ablation and their integration in multilayer solar cells with high photoconversion efficiency. **(2016-2019)**.
- PPR 2: Development of new nanomaterials for electrochemical energy storage: Sodium-air and lithium-ion batteries. **(2016-2019)**
- Projet R&D des phosphates (fondation OCP) Phosphates: a strategic choice for development of high-density Lithium-ion and sodium-ion batteries energy storage LiNa) **(2017-2020)**