






Summary

Recycling of silicon-based PV modules



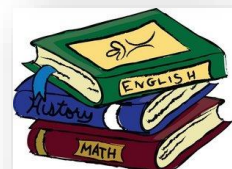
	<p>Target age</p> <p>Age 14 and over</p>	
	<p>Level of difficulty</p> <p><input type="checkbox"/> Easy <input checked="" type="checkbox"/> Medium <input type="checkbox"/> High</p> <p>Key words:</p> <p><i>Photovoltaics, Sustainability, Recycling, Recovery, Critical Raw Materials</i></p>	
	<p>Abstract of the activity:</p> <p>During this activity, pupils are first introduced to the topic of solar photovoltaics (PV) understanding the basic principles about the composition of silicon PV panels and the importance of the recycling processes. Then, they will assemble and then disassemble a silicon photovoltaic mini-panel, simulating the thermal recycling process of Silicon PV panels.</p>	
	<p>Learning Goals</p> <ul style="list-style-type: none"> • Learning about the photovoltaic energy • To be introduced to the concept of silicon PV panels • To understand that silicon solar panels are sustainable • Understanding how a PV module can be recycled • To be introduced to the importance of the recovery of materials • To be aware of the importance of recycling end-of-life PV modules 	

Summary



Specific Abilities - At the end of the activity the student will be able to:

- To know the main components of PV silicon module
- Understanding the importance of recycling end-of-life modules



Cross-curricula Links

- Ecology/Environment
- Physics
- Technology



Prerequisites - Knowledge and skills necessary for carrying out the activity

This lab activity does not require any knowledge prerequisites.



Time requirement

- 60 min (theory) 30 min (laboratory experience)



Learning and Teaching Support Materials - What you can find in the toolkit

1. Teachers' Card
2. Lab Procedure - Module 1
3. Students' Card
4. Tutorial video of the experience
5. PPT of the experience with a short theoretical introduction
6. PPT presentation for an introduction lesson + YouTube video (<https://www.youtube.com/watch?v=mQK6trFpB3Y&list=PLiD8N WQ60GCWIIvmGNw7vgNY1gy6D9pO0&index=13>)
7. Kahoot!™ quiz (<https://create.kahoot.it/details/0f466b52-990a-41a0-9487-67da56b7ebcb>)

RM
Ambassadors

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