

Application No. 544: Levitating Eiffel Tower

Author: Alexandre Echasseriau, Paris, France

A piece of art commemorating 100 years of superconductivity

A hundred years ago, the phenomenon of superconductivity has been invented. Reason enough to implement a project on this topic in 2011.

This 80 cm high model of the Eiffel Tower was made by Alexandre Echasseriau, a design student from ENSCI-Les Ateliers, for the CNRS exposition "Entrée en matière" in October 2011.

"The" Eiffel Tower (the real and only one) had the grace to hold still for the picture with its "little brother".

To make this tower levitate, 9 S-30-10-N (www.supermagnete.fr/eng/S-30-10-N) disc magnets were used: 4 for the ground floor, 4 for the first floor, and a single one for the top floor.

YouTube Video: www.youtube.com/watch?v=X6ivMxvbK1g

The levitation of this model is rendered possible by superconducting pellets. When cooled down to -196°C with liquid nitrogen, they become perfect electrical conductors and repel the magnetic field.

More information on the topic of superconductivity can be found at www.supraconductivite.fr (www.supraconductivite.fr/en/index.php) (French and English).

Concept : Alexandre Echasseriau

Scientific advisors: Julien Bobroff, Frédéric Bouquet (LPS, Orsay)

Partner : CNRS - Université Paris Sud - Supra2011

Photos: Julien Bobroff

Note from the supermagnete team:

Other customer applications on the topic of "superconductivity" can be found "here" (www.supermagnete.fr/eng/projects/superconductor).

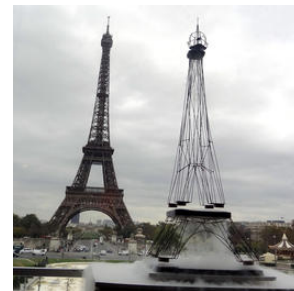
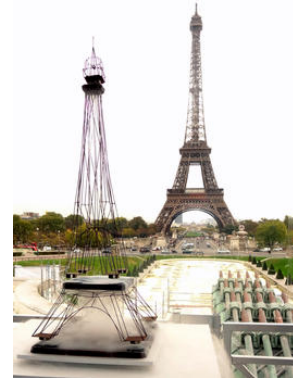
YouTube Video: www.youtube.com/watch?v=8ynkh7HoO-0

Articles used

9 x S-30-10-N: Disc magnet \varnothing 30 mm, height 10 mm (www.supermagnete.fr/eng/S-30-10-N)

Online since: 03/11/2011

The entire content of this site is protected by copyright. Copying the content or using it elsewhere is not permitted without explicit approval.



The real Eiffel Tower and its "little brother" at night