

# 41st INTERNATIONAL SITH'S CONGRESS

*"Thermalism in the second millennium"*

*Peloid Therapy and spa research in Iberoamerica*

**Cuntis 24/06/2014**



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**ESCUELA PROFESIONAL  
DE HIDROLOGÍA MÉDICA  
E HIDROTERÁPIA**

**CÁTEDRA DE HIDROLOGÍA MÉDICA**

# Peloid therapy and spa research in Iberoamerica



F. Maraver

# Peloid therapy and spa research in Iberoamerica



F Texeira

- **Natural Peloid:**
  - Cucos
  - Furnas
  - Caldeiras Ribeira Grande
- **Peloid (sensu strictus):**
  - Vizela
  - Aregos
  - Caldas da Saúde

# Peloid therapy and spa research in Iberoamerica

- **Spain: 5** (Archena, Arnedillo, Boí, Lo Pagán and Raposo)
- **Portugal: 6** (Vizela, Aregos, Cucos, Furnas, Ribeira Grande, C. Saúde)
- **Argentina: 2** (Copahue and Carhue)
- **Brasil: 2** (Peruibe and Poços de Caldas)
- **Cuba: 11** (San Diego, Elgea....., Peloid own practice guideline)

# Peloid therapy and spa research in Iberoamerica

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## PhD Thesis

*Mourelle-Mosqueira ML. Caracterización termofísica de peloides para usos termales terapéuticos. Universidad de Vigo. [thesis]. 2006.*

*Armijo-Suárez O. Estudio de los Peloides españoles. Universidad Complutense Madrid. [thesis]. 2007.*

# Peloid therapy and spa research in Iberoamerica

*Legido JL et al. Comparative study of the cooling rates of bentonite, sepiolite and common clays for their use in pelotherapy. Appl Clay Sci. 2007;36(1-3):148–160.*

# Peloid therapy and spa research in Iberoamerica

*Carretero MI et al. Comparison of saponite and montmorillonite behaviour during static and stirring maturation with sea water for pelotherapy. Appl Clay Sci. 2007;36(1-3):161-173.*

# **Peloid therapy and spa research in Iberoamerica**

***76 Participants***

***29 papers and reports***

***Argentina, Brasil,  
España, Italia, Portugal***

***Foundation:  
Sociedad Española de  
Peloides (Spanish  
Society of Peloids)***

# **Peloid therapy and spa research in Iberoamerica**

**5 Universities**  
**6 Companies**  
**200.000 € budget**

# Peloid therapy and spa research in Iberoamerica

*Gámiz E et al. Influence of water type and maturation time on the properties of kaolinite-saponite peloids, Appl Clay Sci. 2009;46(1):117-123.*

# Peloid therapy and spa research in Iberoamerica

*Carretero MI et al. Mobility of elements in interaction between artificial sweat and peloids used in Spanish spa. Appl Clay Sci. 2010; 48(3):506-515.*



# Peloid therapy and spa research in Iberoamerica

*Baschini MT et al. Suitability of natural sulphur-rich muds from Copahue (Argentina) for use as semisolid health care products. Appl Clay Sci. 2010; 49(3):205-212.*

# **Peloid therapy and spa research in Iberoamerica**

***85 Participants***

***7 Invited lectures***

***18 Oral presentations***

***24 Posters***

***Argentina, Brasil, Cuba,***

***España, Francia,***

***Portugal, Turquía***

# Peloid therapy and spa research in Iberoamerica

## PhD-Thesis

*Fernández-González MV. Proceso de maduración de peloides con fase líquida de las principales aguas minerales y mineromedicinales de la provincia de Granada. Universidad Granada. [thesis]. 2010.*

*Santos AC. Maturação de lamas vulcânicas açorianas e sua aplicação em peloterapia. Universidade de Aveiro. [thesis]. 2011.*

# Peloid therapy and spa research in Iberoamerica

*Casas LM et al. Specific heat of mixtures of bentonitic clay and sea water or distilled water for their use in thermotherapy. Thermochemica Acta. 2011;524, 68-73.*

# Peloid therapy and spa research in Iberoamerica

*Rebelo M et al. Rheological and termal characterization of peloids made of selected Portuguese geological materials. Appl. Clay Sci. 2011;52 (3), 219–227.*

# **Peloid therapy and spa research in Iberoamerica**

***38 WC ISMH***

***2 Sessions Mud Therapy***

***2 Invited lectures***

***13 Oral presentations***

***11 Posters***

***Participants from 26  
countries***

# Peloid therapy and spa research in Iberoamerica

*Gomes C et al. Peloids and pelotherapy: Historical evolution, classification and glossary. Appl Clay Sci. 2013;75-76:28-38.*

# Peloid therapy and spa research in Iberoamerica

*Fernández-González MV et al. A study of the chemical, mineralogical and physicochemical properties of peloids prepared with two medicinal mineral waters from Lanjarón Spa (Granada, Spain). Appl Clay Sci. 2013;80-81:107-116.*



# Peloid therapy and spa research in Iberoamerica

*Pozo M et al. Composition and physical-physicochemical properties of peloids used in Spanish spas: a comparative study. Appl Clay Sci. 2013; 83-84, 270-279.*

# Peloid therapy and spa research in Iberoamerica

***8 Invited lectures***

***33 Oral presentations***

***21 Posters***

***Argentina, Brasil,  
España, Francia,  
Portugal***

***Foundation:***

***Sociedad***

***Iberoamericana de***

***Peloides***

***(Iberoamerican Society  
of peloids)***

# Peloid therapy and spa research in Iberoamerica

*Espejo Antúñez L et al. Effects of mud therapy on perceived pain and quality of life related to health in patients with knee osteoarthritis. Reumatol Clin. 2013;9(3):156-60.*

# Peloid therapy and spa research in Iberoamerica

*Caridad V et al. Thermal conductivity and density of clay pastes at various water contents for pelotherapy use. Appl Clay Sci. 2014; 93-94: 23-27*

# Peloid therapy and spa research in Iberoamerica

## PhD-Thesis

*Espejo-Antúnez L. Estudio comparativo del efecto de dos tratamientos balnearios, hidrocinesiterapia versus peloides, aplicados en pacientes diagnosticados de artrosis de rodilla. Universidad Extremadura. [thesis]. 2012.*

*Pozo E. Interacción entre materiales arcillosos y aguas minerales en la preparación de peloides, análisis y evaluación de sus efectos en la salud humana. Universidad Autónoma Madrid. [thesis]. 2013.*

*Carbajo Espejo JM. Evaluación de los cambios en la piel tras la aplicación de cosméticos elaborados a partir del sedimento de las aguas minero- medicinales Lanjarón-Capuchina mediante métodos de bioingeniería cutánea. Universidad Complutense Madrid. [thesis]. 2014.*

*Fernández Torán MA. Propiedades físico-químicas de materiales susceptibles de ser utilizados en la preparación de Peloides. Universidad Complutense Madrid. [thesis]. 2014.*

# Peloid therapy and spa research in Iberoamerica

## CONCLUSIONS

Since 2007

- 1. Foundation of two Scientific Societies:**
  - *Sociedad Española de Peloides (Spanish Peloid Society) in 2007*
  - *Sociedad Iberoamericana de Peloides (Iberoamerican Peloid Society) in 2013*
- 2. Organization of 3 International Conferences of Peloids (2 in Spain and 1 in Portugal) and 2 Scientific Sessions on the 39 WC 2012 ISMH**
- 3. 8 PHD-Thesis submitted at 6 Universities**
- 4. 14 papers published in journals indexed in the Journal Citation Reports (JCR) at the web of Knowledge (WoK) magazines (12 of them on the first quartile Q1 and more than 2 IF)**
- 5. 2 Competitive Research Projects with a budget of 250,000 €**

**IV CIBAP**  
**Boí 2015**

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