

Written on 21 November 2018 5 minutes of reading

News

Fundamental Research

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Geosciences

On 24 October, **Xavier Mangenot**, former PhD researcher in the Geosciences Division, **was awarded the 2018 Van Straelen prize from the French Geological Society** (SGF) for his thesis entitled ***"Contributions of the ?$_{47}$ thermometer and the U-Pb chronometer to the study of the diagenetic, thermal and hydrogeological history of the Middle Jurassic carbonate reservoirs of the Paris basin"***.

His work, singled out for its quality and originality, focused on the characterization of parameters (temperature, pressure, age, fluid geochemistry) governing the interactions between natural fluids and carbonate rocks using innovative tools.

He defended the thesis, directed by Magali Ader (IPGP[1]) and Marta Gasparrini (IFPEN), and supervised by Virgile Rouchon (IFPEN) and Magalie Bonifacie (IPGP), in December 2017.

The **Association des Géologues du Sud-Est (South-East Geologists Association)** awarded its 2018 thesis prize to **Alexandre Lettéron** for his thesis entitled ***"Sedimentological, stratigraphic and paleoenvironmental characterization of the variable salinity lacustrine carbonate system of the Alès Basin and bordering regions (Priabonian, SE France): paleoclimatic and paleogeographic***

***implications"**.*

This thesis, conducted at IFPEN's Geosciences Division, was directed by François Fournier (Aix-Marseille University/CEREGE) and Philippe Joseph (IFP School) within the context of the*"Reservoir Sedimentology and Characterization" Chair* supported by TOTAL, and co-directed by Youri Hamon (IFPEN).

Defended in March 2018, it focused on combining - something that is rarely done - sedimentological, palaeontological, palaeobotanical and geochemical approaches for the characterization of lacustrine sedimentary series, dating back to the Priabonian era, in South-East France.

This biennial prize was awarded in recognition of the quality of his results and interpretations.

[1] *Institut de Physique du Globe de Paris. (Institute of Earth Physics of Paris)*

Publications

1. ***Mangenot, X.**, **Gasparrini, M.**,Bonifacie, M., **Rouchon, V.** (2018), **Basin?scale thermal and fluid flow histories revealed by carbonate clumped isotopes (?47) – Middle Jurassic carbonates of the Paris Basin depocentre**, Sedimentology.*
   >> DOI.10.1111/sed.12427

2. ***Mangenot, X.**, Bonifacie, M., **Gasparrini, M.**, Götz A., Chaduteau C., Ader, M. **Rouchon, V** (2017), **Coupling ?47 and fluid inclusion thermometry on carbonate cements to precisely reconstruct the temperature, salinity and ?18O of paleo-groundwater in sedimentary basins**, Chemical Geology.*
   >> DOI.10.1016/j.chemgeo.2017.10.011

3. ***Mangenot, X., Gasparrini**, M., Gerdes, A., Bonifacie, M., **Rouchon, V., An emerging thermochronometer for carbonate-bearing rocks: ?47/(U-Pb)**, Geology (sous presse).*
   >> DOI: 10.1130/G45196.1

4. ***Lettéron, A.**, Fournier, F., **Hamon, Y.**, Villier, L., Margerel, J.-P., Bouche, A., Feist, M., **Joseph, P.**, 2017, **Multi-proxy paleoenvironmental reconstruction of saline lake carbonates: Paleoclimatic and paleogeographic implications (Priabonian-Rupelian, Issirac Basin, SE France)**, Sedimentary Geology, 358, pp. 97?120.*
   >> DOI: 10.1016/j.sedgeo.2017.07.006

5. ***Lettéron, A., Hamon, Y.**, Fournier, F., Séranne, M., Pellenard, P., **Joseph, P.**, 2018, **Reconstruction of a saline, lacustrine carbonate system (Priabonian, St-Chaptes Basin, SE France): Depositional models, paleogeographic and paleoclimatic implications**, Sedimentary geology, 367, pp. 20-47.*
   >> DOI: 10.1016/j.sedgeo.2017.12.023

Read about them in the next issue (December 2018) of Science@ifpen, dedicated to PhD students potentially in line for the 2018 Yves Chauvin thesis prize.

Awards for two IFPEN PhD students in the field of geosciences
21 November 2018

Link to the web page :