



## Articles publiés dans des revues de rang A en 2008

ALTMANN, S. (2008) Geochemical research: a key building block for nuclear waste disposal safety cases. *Journal of Contaminant Hydrology*, 102, 174-179.

APPELO, C.A.J., VINSOT, A., METTLER, S. et WECHNER S. (2008) Obtaining the porewater composition of a clay rock by modeling the in and out diffusion of anions and cations from an in-situ experiment. *Journal of Contaminant Hydrology*. 101, 1-4, 67-76.

BILLIOTTE, J., YANG, D. et SU, K. (2008) Experimental study on gas permeability of mudstones. *Physics and chemistry of the earth*, 33, 231-236.

BOULILA, S., HINNOV, L., HURET, E., COLLIN, P.Y., GALBRUN, B., FORTWENGLER, D., MARCHAND, D. et THIERRY, J. (2008) Astronomical calibration of the Early Oxfordian (Vocontian and Paris basins, France): consequences of revising time scale. *Earth and planetary science letters*, 276, 40-51.

BOULIN, P., ANGULO-JARAMILLO, Rafael, DAIAN, J.F., TALANDIER, J. et BERNE, P. (2008) Pore gas connectivity analysis for parameters identification related to gas transfer in Callovo-Oxfordian argillite. *Applied clay science*, 42, 1-2, 276-283.

BOULIN, P., ANGULO-JARAMILLO, R., DAIAN, J.F., TALANDIER, J. et BERNE, P. (2008) Experiments to estimate gas intrusion in Callovo-Oxfordian argillites. *Physics and chemistry of the earth*, 33, 225-236.

BOURDOISEAU, J-A., JEANNIN, M., SABOT, R., REMAZEILLES, C. et REFAIT, P. (2008) Characterisation of mackinawite by Raman spectroscopy: Effects of crystallisation, drying and oxidation. *Corrosion science*, 50, 11, 3247-3255.

BOURG, I.C., SPOSITO, G. et BOURG, A.C.M. (2008) Modeling the diffusion of Na<sup>+</sup> in compacted water-saturated Na-bentonite as a function of pore water ionic strength. *Applied Geochemistry*, 23, 3635-3641.

CAMPS, G., TURATSINZE, A., SELLIER, A., ESCADEILLAS, G. et BOURBON, X. (2008) Steel fibre-reinforcement and hydration coupled effects on concrete tensile behaviour. *Engineering Fracture Mechanics*, 75, 5207-5216.

CATTANT, F., CRUSSET, D. et FERON, D. (2008) Corrosion issues in nuclear industry today. *Materials today*, 11, 10, 32-37.

CHITTY, W.J., DILLMANN, P., MILLARD, A. et L'HOSTIS, V. (2008) Long-term corrosion of rebars embedded in aerial and hydraulic binders- Parametric study and first step of modelling. *Corrosion science*, 50, 3047-3055.

CODINA, M., CAU-DIT-COUMES, C., LE BESCOP, P., VERDIER, J., OLLIVIER, J.P., BOURBON, X. et PETIT, L. (2008) Design and characterization of low-heat and low-alkalinity cements. *Cement and Concrete Research*, 38, 4, 437-448.

COSENZA, P., GHORBANI, A., REVIL, A., ZAMORA, M., SCHMUTZ M., JOUGNOT, D. et FLORSCH, N. (2008) A physical model of the low-frequency electrical polarization of clay-rocks. *Journal of geophysical research. Part B : Solid earth*, 113, B8.

CRESPY, A., REVIL, A., LINDE, N., BYRDINA, S. et JARDANI, A. (2008) Detection and localisation of hydromechanical disturbances in a sandbox using the self-potential method. *Journal of geophysical research. Part B : Solid earth*, 113, B1.

CRUCHAUDET, M., CROISE, J. et LAVANCHY, J.M. (2008) In-situ osmotic experiment in the Callovo-Oxfordian argillaceous formation at the Meuse/Haute-Marne URL (France): data and analysis. *Physics and chemistry of the earth*, 33, 114-124.

CUISINIER, O., MASROURI, F., PELLETIER, M., VILLIERAS, F. et MOSSER-RUCK, R. (2008) Microstructure of a compacted soil submitted to an alkaline plume. *Applied clay science*, 40, 1-4, 159-170.

DELAY, J., LESAVRE, A. et WILEVEAU, Y. (2008) The French underground research laboratory in Bure as a precursor for deep geological repositories. *Engineering Geology*, XIX, 97-111.

DELOS, A., WALTHER, C., SCHAFFER, T. et BUCHNER, S. (2008) Size dispersion and colloid mediated radionuclide transport in a synthetic porous media. *Journal of colloid and interface science*, 324, 212-215.

DENIAU I., DEVOL-BROWN, I., DERENNE S. et LARGEAU C. (2008) Comparison of the bulk geochemical features and thermal reactivity of kerogens from Mol, Bure and Tournemire underground research laboratories. *Science of the total environment*, 389, 475-485.

DESCOSTES, M., BLIN, V., BAZER-BACHI, F., MEIER, P., GRENUT, B., RADWAN, J., SCHLEGEL, M.L., BUSCHAERT, S., COELHO, D. et TEVISSSEN, E. (2008) Diffusion of anionic species in Callovo-Oxfordian argillites and Oxfordian limestones. *Applied Geochemistry*, 23, 4, 655-677.

DUC, M., CARTERET, C., THOMAS, F. et GABORIAUD, F. (2008) Temperature effect on the acid-base behaviour of Na-montmorillonite. *Journal of colloid and interface science*, 327, 472-476.

ERN, A. et STEPHANSEN, A. (2008) A posteriori energy-norm error estimates for advection-diffusion equations approximated by weighted interior penalty methods. *Journal of computational mathematics*, 26, 4, 488-510.

- FERON, D., CRUSSET, D. et GRAS, J.M. (2008) Corrosion issues in nuclear waste disposal. *Journal of Nuclear Materials*, 379, 16-23.
- GAILHANOU, H., ROGEZ, J., VAN MILTENBURG, J.C., VAN GENDEREN, A., GRENECHE, J.M., GILLES, C., JALABERT, D., MICHAU, N., GAUCHER, E.C. et BLANC, P. (2008) Thermodynamic properties of chlorite CCa-2. Heat capacities, heat contents and entropies. *Geochimica et Cosmochimica Acta*, 73, 16, 4738-4749.
- GAONA, X., MONTOYA, V., COLAS, E., GRIVE, M. et DURO, L. (2008) Review of the complexation of tetravalent actinides by ISA and gluconate under alkaline to hyperalkaline conditions. *Journal of Contaminant Hydrology*, 102, 3-4, 217-227.
- GARCIA-GUTIERREZ, M., CORMENZANA, J.L., MISSANA, T., MINGARRO, M., ALONSO, U., SAMPER, J., YANG, Q.S. et YI, S. (2008) Diffusion experiments in Callovo-Oxfordian clay from the Meuse/Haute-Marne URL. Experimental setup and data analyses. *Physics and chemistry of the earth*, 33, 125-130.
- GONCALVES, J. et GUEUTIN, P. (2008) Molecular-scale model for the mass density of electrolyte solutions bound by clay surfaces: application to bentonites. *Journal of colloid and interface science*, 320, 590-598.
- GUERY, A., CORMERY, F., SHAO, J.F. et KONDO, D. (2008) A micromechanical model of elastoplastic and damage behavior of a cohesive geomaterial. *International Journal of solids and structures*, 45, 1406-1429.
- GUERY, A., CORMERY, F., SU, K. et LEBON, P. (2008) A micromechanical model for the elasto-viscoplastic and damage behavior of a cohesive geomaterial. *Physics and chemistry of the earth*, 33, 416-427.
- GUEUTIN, P., GONCALVES, J. et VIOLETTE, S. (2008) Osmotic efficiency in Callovo-Oxfordian argillites: Experimental vs. theoretical models. *Physics and chemistry of the earth*, 33, 106-116
- GUPTA, A., COELHO, D./ADLER, P.M. (2008) Universal electro-osmosis formulae for porous media. *Journal of colloid and interface science*, 319, 549-554.
- JIA, Y., DUVEAU, G., SU, K. et SHAO, J.F. (2008) Hydromechanical modeling of shaft excavation in Meuse/Haute-Marne laboratory. *Physics and chemistry of the earth*, 33, 422-435.
- LAOUAFA, F., KAZMIERCZAK J.B. et ARMAND, G. (2008) Three-dimensional and time stepping of the whole Meuse-Haute Marne URL. *Physics and chemistry of the earth*, 33, 448-456.
- LEFRANC, M., BEAUDOIN, B., CHILES, J.P., GUILLEMOT, D., RAVENNE, C. et TROUILLER, A. (2008) Geostatistical characterization of the Callovo-Oxfordian clay variability from high resolution log data. *Physics and chemistry of the earth*, 33, 2-13.

- LEROY, P., REVIL, A., COSENZA, P., KEMNA A. et GHORBANI, A. (2008) Complex conductivity of water-saturated packs of glass beads. *Journal of colloid and interface science*, 321, 103-117.
- MARCHAND, E., CLEMENT, F., ROBERTS, J.E. et PEPIN, G. (2008) Deterministic sensitivity analysis for a model for flow in porous media. *Advances in water resources*, 31, 8, 1025-1037.
- MARRY, V., ROTENBERG, B. et TURQ, P. (2008) Structure and dynamics of water at a clay surface from molecular dynamics simulation. *Physical chemistry chemical physics*, 10, 32, 4802-4813.
- MARTIN F.A., BATAILLON, C. et SCHLEGEL, M.L. (2008) Corrosion of iron and low alloyed steel within a water saturated brick of clay under anaerobic deep geological disposal conditions: an integrated experiment. *Journal of Nuclear Materials*, 379, 80-90.
- MAZUREK, M., GAUTSCHI, A., MARSCHALL, P., VIGNERON, G., LEBON, P. et DELAY, J. (2008) Various sources (study sites, underground rock laboratories, natural analogues) to support safety cases for radioactive waste repositories in argillaceous formations. *Physics and chemistry of the earth*, 33, 95-105.
- NICOLLIN, F., GIBERT, D., BOSSART, P., NUSSBAUM, C. et GUERVILLY, C. (2008) Seismic tomography of the excavation damaged zone of the gallery 04 in the mont terri rock laboratory. *Geophysical journal international*, 172, 1, 226-239.
- POINTEAU, I., COREAU, N. et REILLER, P. (2008) Uptake of anionic radionuclides onto degraded cement pastes and competing effect of organic ligands. *Radiochimica acta*, 96, 367-374.
- REVIL, A. et JOUGNOT, D. (2008) Diffusion of ions in unsaturated clay-rocks. *Journal of colloid and interface science*, 319, 226-235.
- ROTENBERG, B., PAGONBARRAGA I. et FRENKEL D. (2008) Dispersion of charged tracers in charged porous media. *Europhysics Letters*, 83, 34004.
- SAHEB, M., NEFF, D., DILLMANN, P., MATTHIESEN, H. et FOY, E. (2008) Long-term corrosion behaviour of low-carbon steel in anoxic environment: Characterisation of archaeological artefacts. *Journal of Nuclear Materials*, 379, 118-123.
- SAMPER, J., YANG, Q.S., GARCIA-GUTIERREZ, M., MISSANA, T., MINGARRO, M., ALONSO, U. et CORMENZANA, J.L. (2008) Numerical modeling of large-scale solid-source diffusion experiments in Callovo-Oxfordian clay. *Physics and chemistry of the earth*, 33, 208-215.
- SAROUT, J. et GUEGUEN, Y. (2008) Anisotropy of elastic wave velocities in deformed shales: Part 2 - Modeling results. *Geophysics*, 73, 5, 91-103.
- SAROUT, J. et GUEGUEN, Y. (2008) Anisotropy of elastic wave velocities in deformed shales: Part 1 - Experimental results. *Geophysics*, 73, 5, 75-89.

SCHLEGEL, M.L., BATAILLON, C., BENHAMIDA K., BLANC, C., MENUT D. et LACOUR J-L. (2008) Metal corrosion and argillite transformation at the water-saturated, high temperature iron-clay interface: a microscopic-scale study. *Applied Geochemistry*, 23, 2619-2633.

SHAO, H., SCHUSTER, K., SONNKE, J. et BRAUER, V. (2008) EDZ development in indurated clay formations - in situ borehole measurements and coupled H-M modeling. *Physics and chemistry of the earth*, 33, 388-395.

TERTRE, E., HOFMANN, A. et BERGER, G. (2008) Rare earth element sorption by basaltic rock: experimental data and modeling results using the 'Generalised Composite approach. *Geochimica et Cosmochimica Acta*, 72, 1043-1056.

TOURNASSAT, C., LEROUGE C., BLANC, P., BRENDLE, J., GRENECHE, J.M., TOUZELET, S., GAUCHER, E.C. (2008) Cation exchanged Fe (II) and Sr compared to other divalent cations (Ca, Mg) in Bure Callovian-Oxfordian formation. Implications for porewater composition modelling. *Applied Geochemistry*, 23, 4, 641-654.

VINSOT, A., APPELO, C.A.J., CAILTEAU, C., WECHNER S., PIRONON, J., DE DONATO, P., DE CANNIERE, P., METTLER, S., WERSIN, P. et GABLER, H.E. (2008) CO<sub>2</sub> data on gas and pore water sampled in situ in the Opalinus Clay at the Mont Terri rock laboratory. *Physics and chemistry of the earth*, 33, 54-60.

VINSOT, A., METTLER, S. et WECHNER S. (2008) In-situ characterization of the Callovo-Oxfordian pore water composition. *Physics and chemistry of the earth*, 33, 76-86.

WENK H.R., VOLTOLINI M., MAZUREK, M., VAN LOON, L. et VINSOT, A. (2008) Preferred orientations and anisotropy in shales: Callovo-Oxfordian shale (France) and Opalinus clay (Switzerland). *Clays and clay minerals*, 56, 285-306.

WERSIN, P., SOLER, J.M., VAN LOON, L., EIKENBERG, J., BAEYENS, B., GROLIMUND, D., GIMMI, T. et DEWONCK, S. (2008) Diffusion of HTO, Br<sup>-</sup>, I<sup>-</sup>, Cs<sup>+</sup>, <sup>85</sup>Sr<sup>2+</sup> and <sup>60</sup>Co<sup>2+</sup> in a clay formation: Results and modelling from an in situ experiment in Opalinus Clay. *Applied Geochemistry*, 23, 4, 678-691.

WILEVEAU, Y. et BERNIER, F. (2008) Similarities in the hydro-mechanical response of Callovo-Oxfordian clay and boom clay during gallery excavation. *Physics and chemistry of the earth*, 33. 343-349.

WOHLFARTH, B., VERES, D., AMPEL, L., LACOURSE, T., BLAAUW, M., PREUSSER, F., ANDRIEU-PONEL, V., KRAVIS, d., LALLIER-VERGES, E., BJORCK, S., DAVIES, S.M., DE BEAULIEU, J.L. et RISBERG, J. (2008) Rapid ecosystem response to abrupt climate changes during the last glacial period in western Europe, 40-16 ka. *Geology*, 36, 5, 407-410.