

Liste des publications de Christophe Fond

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Résumé

Toutes mes communications scientifiques et pédagogiques

Keywords: All my scientific and educational communications

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Liste par ordre décroissant du nombre de citations : (Fond, 2001), (Ovarlez et al., 2003), (Boisot et al., 2011), (Schnell et al., 2011), (Fond et al., 1996), (Cuny et al., 2018), (Gauthier et al., 2006b), (Schirrer et al., 1996b), (Fond et al., 2001), (Magnenet et al., 2014), (Lin et al., 2020), (Kopp et al., 2014b), (Fond et al., 2021), (Beguelin et al., 1998), (Géhant et al., 2003), (Solar et al., 2012a), (Lepizzera et al., 1997b), (Apedo et al., 2015), (Vallier et al., 2019), (Cuny et al., 2020), (Berthaud et al., 1997), (Fond and Berthaud, 1996), (Lepizzera et al., 1997a), (Vallier et al., 2018), (Kopp et al., 2015), (Fond, 2002a), (Fond and Schirrer, 2001b), (Kopp et al., 2018b), (Chiriatti et al., 2019), (Nguyen et al., 2015), (Alchikh et al., 2010a), (Tinard et al., 2018), (Cros et al., 2000), (Fond and Schirrer, 2001a), (Vallier et al., 2020), (Cuny et al., 2019), (Alchikh et al., 2010b), (Fond et al., 1998), (Berthaud et al., 1994), (Fond and Schirrer, 1997), (Magnenet et al., 2017), (Violaine et al., 2015), (Apedo et al., 2016), (Kiefer et al., 1996), (Schirrer and Fond, 1995), (Fond and Schirrer, 2004), (Bernard et al., 2015), (Kopp et al., 2014a), (Chadfeau et al., 2020), (Montgomery et al., 2015), (Fond and Schirrer, 1996), (Beguelin et al., 1997), (Demirci et al., 2005a), (Ahmed et al., 2015), (Chadfeau et al., 2021), (Chiriatti et al., 2020), (Fond, 2002b), (Schirrer et al., 1996a), (Fond et al., 2010), (Tinard et al., 2021a), (Tinard et al., 2021b), (Kopp et al., 2018a), (Demirci et al., 2005b), (Braymand et al., 2015), (Kopp et al., 2016), (Gauthier et al., 2006a), (Apedo et al., 2017), (Solar et al., 2012b).

References

- Ahmed, K.B., Serres, N., Fond, C., Feugeas, F., 2015. Bioréceptivité de matériaux cimentaires en eau de rivière et technique d'évaluation de la biodétérioration par indentation. *Matériaux & Techniques* 103, 203–203. 1 cites:.
- Alchikh, M., Fond, C., Frère, Y., 2010a. Discontinuous crack growth in poly (vinyl fluoride) by mechanochemical ageing in sodium hydroxide. *Polymer Degradation and Stability* 95, 440–444. 6 cites:.
- Alchikh, M., Fond, C., Frère, Y., Pelletier, H., 2010b. Mechanochemical degradation of poly(vinyl fluoride) by sodium hydroxide measured by microindentation. *Journal of Materials Science* 45, 2311–2316. 5 cites:.
- Apedo, K., Montgomery, P., Serres, N., Fond, C., Feugeas, F., 2016. Geometrical roughness analysis of cement paste surfaces using coherence scanning interferometry and confocal microscopy. *Materials Characterization* 118, 212–224. 3 cites:.
- Apedo, K., Munzer, C., He, H., Montgomery, P., Serres, N., Fond, C., Feugeas, F., 2015. Cement paste surface roughness analysis using coherence scanning interferometry and confocal microscopy. *Materials Characterization* 100, 108–119. 14 cites:.
- Apedo, K.L., Braymand, S., Hoerd, F., Feugeas, F., Fond, C., 2017. Failure process of recycled concrete aggregate mortars based on digital image correlation. International Digital Imaging Correlation Society , 95–100Query date: 2022-03-31 13:52:35.
- Beguelin, P., Fond, C., Kausch, H., 1998. *International Journal of Fracture* 89, 85–102. 18 cites:.
- Beguelin, P., Fond, C., Kausch, H.H., 1997. Fracture mechanics at intermediate rates of loading : The influence of the acceleration on compact tension tests. *Le Journal de Physique IV* 7. 1 cites:.
- Bernard, C.A., Fond, C., Ahzi, S., Bahlouli, N., 2015. Extraction of polymer stress-strain behavior in the presence of self-heating by the use of a simple model for the elastic-plastic deformation. *Polymer Engineering & Science* 55, 2474–2481. 2 cites:.

- Berthaud, Y., Fond, C., Brun, P., 1994. Effect of interactions on the stiffness of cracked media. *Mechanics Research Communications* 21, 525–533. 4 cites:.
- Berthaud, Y., Torrenti, J.M., Fond, C., 1997. Analysis of localization in brittle materials through optical techniques. *Experimental Mechanics* 37, 216–220. 12 cites:..
- Boisot, G., Laiarinandrasana, L., Besson, J., Fond, C., Hochstetter, G., 2011. Experimental investigations and modeling of volume change induced by void growth in polyamide 11. *International Journal of Solids and Structures* 48, 2642–2654. 62 cites:..
- Braymand, S., François, P., Feugeas, F., Fond, C., 2015. Rheological properties of recycled aggregate concrete using superplasticizers. *Journal of Civil Engineering and Architecture* 9. Query date: 2022-03-31 13:52:35.
- Chadfeau, C., Mohseni, S.H., Omary, S., Steiner, V., Belhaj, E., Fond, C., Feugeas, F., 2020. Influence d'un bioadjuvant sur l'adhésion du ciment sur parois coffrantes et évaluation de l'effet de la rugosité des parois coffrantes. *Matériaux & Techniques* 108, 301–301.
- Chadfeau, C., Omary, S., Belhaj, E., Fond, C., Feugeas, F., 2021. Characterization of the surface of formworks – influence of the surface energy and surface texture parameters on the demolding forces. *Construction and Building Materials* 272, 121947–121947. 1 cites:..
- Chiriatti, L., François, P., Mercado-Mendoza, H., Apedo, K.L., Fond, C., Feugeas, F., 2020. Monitoring of the rebar-concrete bond structural health through ultrasonic measurements: application to recycled aggregate concrete. *Journal of Civil Structural Health Monitoring* 10, 595–607. 1 cites:..
- Chiriatti, L., Mercado-Mendoza, H., Apedo, K.L., Fond, C., Feugeas, F., 2019. A study of bond between steel rebar and concrete under a friction-based approach. *Cement and Concrete Research* 120, 132–141. 8 cites:..
- Cros, P.E., Rota, L., Cottenot, C.E., Schirrer, R., Fond, C., 2000. Experimental and numerical analysis of the impact behaviour of polycarbonate and polyurethane multilayer. *Le Journal de Physique IV* 10. 6 cites:..

- Cuny, M., Lin, J., Siroux, M., Fond, C., 2019. Influence of an improved surrounding soil on the energy performance and the design length of earth-air heat exchanger. *Applied Thermal Engineering* 162, 114320–114320. 5 cites:.
- Cuny, M., Lin, J., Siroux, M., Fond, C., 2020. Influence of rainfall events on the energy performance of an earth-air heat exchanger embedded in a multilayered soil. *Renewable Energy* 147, 2664–2675. 13 cites:.
- Cuny, M., Lin, J., Siroux, M., Magnenet, V., Fond, C., 2018. Influence of coating soil types on the energy of earth-air heat exchanger. *Energy and Buildings* 158, 1000–1012. 38 cites:.
- Demirci, I., Gauthier, C., Fond, C., Schirrer, R., 2005a. Analysis of the damage of uncoated polymeric surfaces during scratching. *World Tribology Congress III, Volume 1* .
- Demirci, I., Gauthier, C., Fond, C., Schirrer, R., 2005b. Mechanical analysis of the damage of a thin polymeric coating during scratching. *World Tribology Congress III, Volume 2* .
- Fond, C., 2001. Cavitation criterion for rubber materials: A review of void-growth models. *Journal of Polymer Science Part B: Polymer Physics* 39, 2081–2096. 108 cites:.
- Fond, C., 2002a. Effects of mechanical interactions on the hydrostatic stress in randomly distributed rubber particles in an amorphous polymer matrix. *Polymer* 43, 909–919. 8 cites:.
- Fond, C., 2002b. Localisation des déformations et mécanismes d'endommagements dans les polymères multiphasés. *Mécanique & Industries* Query date: 2022-03-31 13:52:35.
- Fond, C., Berthaud, Y., 1996. Extensions of the pseudo tractions technique for friction in cracks, circular cavities and external boundaries; effect of the interactions on the homogenised stiffness. *International Journal of Fracture* 74, 1–28. 10 cites:.
- Fond, C., Kiefer, J., Mendels, D., Ferrer, J., Kausch, H., Hilborn, J., 1998. *Journal of Materials Science* 33, 3975–3984. 5 cites:.

Fond, C., Lobbrecht, A., Schirrer, R., 1996. Polymers toughened with rubber microspheres: an analytical solution for stresses and strains in the rubber particles at equilibrium and rupture. International Journal of Fracture 77, 141–159. 42 cites:.

Fond, C., Noël, O., Brogly, M., 2010. Extension of the hertz model for accounting to surface tension in nano-indentation tests of soft materials. Particle and Continuum Aspects of Mesomechanics , 315–322Query date: 2022-03-31 13:52:35.

Fond, C., Riccardi, A., Schirrer, R., Montheillet, F., 2001. Mechanical interaction between spherical inhomogeneities: an assessment of a method based on the equivalent inclusion. European Journal of Mechanics - A/Solids 20, 59–75. 24 cites:.

Fond, C., Schirrer, R., 1996. A mechanical model for the onset of damage in rubber modified amorphous polymers. Le Journal de Physique IV 6. 1 cites:.

Fond, C., Schirrer, R., 1997. Fracture surface energy measurement at high crack speed using a strip specimen : Application to rubber toughened pmma. Le Journal de Physique IV 7. 3 cites:.

Fond, C., Schirrer, R., 2001a. Dynamic fracture surface energy values and branching instabilities during rapid crack propagation in rubber toughened pmma. Comptes Rendus de l'Académie des Sciences - Series IIB - Mechanics 329, 195–200. 5 cites:.

Fond, C., Schirrer, R., 2001b. Influence of crack speed on fracture energy in amorphous and rubber toughened amorphous polymers. Plastics, Rubber and Composites 30, 116–124. 8 cites:.

Fond, C., Schirrer, R., 2004. Compliant rubber domains in a rigid polymer matrix: Shape and orientation factors related to cavitation and plastic dissipation. Journal of Polymer Science Part B: Polymer Physics 42, 1476–1486. 2 cites:.

Fond, G., Nemanic, K., Etchecopar-Etchart, D., Loundou, A., Goff, D.C., Lee, S.W., Lancon, C., Auquier, P., Baumstarck, K., Llorca, P.M., Yon, D.K., Boyer, L., 2021. Association between mental health disorders and

mortality among patients with covid-19 in 7 countries. *JAMA Psychiatry* 78, 1208–1208. 21 cites:.

Gauthier, C., Durier, A.L., Fond, C., Schirrer, R., 2006a. Mechanical analysis of the scratching properties of coated polymers. *Scratching of Materials and Applications*, 1–21Query date: 2022-03-31 13:52:35.

Gauthier, C., Durier, A.L., Fond, C., Schirrer, R., 2006b. Scratching of a coated polymer and mechanical analysis of a scratch resistance solution. *Tribology International* 39, 88–98. 35 cites:.

Géhant, S., Fond, C., Schirrer, R., 2003. Criteria for cavitation of rubber particles: Influence of plastic yielding in the matrix. *International Journal of Fracture* 122, 161–175. 16 cites:..

Kiefer, J., Porouchani, R., Mendels, D., Ferrer, J.B., Fond, C., Hedrick, J.L., Kausch, H.H., Hilborn, J.G., 1996. Macroporous thermosets via chemically induced phase separation. *MRS Proceedings* 431.

Kopp, J.B., Fond, C., Hochstetter, G., 2018a. A numerical and experimental investigation of dynamic fracture in polyamide 11: the effect of the sample geometry. *Procedia Structural Integrity* 13, 855–861. Query date: 2022-03-31 13:52:35.

Kopp, J.B., Fond, C., Hochstetter, G., 2018b. Rapid crack propagation in pa11: An application to pipe structure. *Engineering Fracture Mechanics* 202, 445–457. 8 cites:..

Kopp, J.B., Fond, C., Schmittbuhl, J., Noel, O., 2016. Dynamic fracture in rubber toughened polymers: the influence of the fracture surface roughness. *Procedia Structural Integrity* 2, 468–476. Query date: 2022-03-31 13:52:35.

Kopp, J.B., Lin, J., Schmittbuhl, J., Fond, C., 2014a. Longitudinal dynamic fracture of polymer pipes. *European Journal of Environmental and Civil Engineering*, 1–92 cites:..

Kopp, J.B., Schmittbuhl, J., Noel, O., Fond, C., 2015. A self-affine geometrical model of dynamic rt-pmma fractures: implications for fracture energy measurements. *International Journal of Fracture* 193, 141–152. 9 cites:..

- Kopp, J.B., Schmittbuhl, J., Noel, O., Lin, J., Fond, C., 2014b. Fluctuations of the dynamic fracture energy values related to the amount of created fracture surface. *Engineering Fracture Mechanics* 126, 178–189. 21 cites:.
- Lepizzera, S., Pith, T., Fond, C., Lambla, M., 1997a. Mechanical behavior at finite strain of coalesced core/shell latex films. *Macromolecules* 30, 7945–7952. 10 cites:.
- Lepizzera, S., Scheer, M., Fond, C., Pith, T., Lambla, M., Lang, J., 1997b. Coalesced core/shell latex films under elongation imaged by atomic force microscopy. *Macromolecules* 30, 7953–7957. 14 cites:.
- Lin, J., Nowamooz, H., Braymand, S., Wolff, P., Fond, C., 2020. Impact of soil moisture on the long-term energy performance of an earth-air heat exchanger system. *Renewable Energy* 147, 2676–2687. 22 cites:.
- Magnenet, V., Cornet, F.H., Fond, C., 2017. A nontectonic origin for the present-day stress field in the paris basin (france). *Journal of Geophysical Research: Solid Earth* 122, 9313–9327. 3 cites:.
- Magnenet, V., Fond, C., Genter, A., Schmittbuhl, J., 2014. Two-dimensional thm modelling of the large scale natural hydrothermal circulation at soultz-sous-forêts. *Geothermal Energy* 2. 23 cites:.
- Montgomery, P.C., Salzenstein, F., Gianto, G., Apedo, K.L., Serres, N., Fond, C., Feugeas, F., 2015. Multi-scale roughness measurement of cementitious materials using different optical profilers and window resizing analysis. *SPIE Proceedings* 2 cites:.
- Nguyen, Q.T., Tinard, V., Fond, C., 2015. The modelling of nonlinear rheological behaviour and mullins effect in high damping rubber. *International Journal of Solids and Structures* 75, 235–246. 7 cites:.
- Ovarlez, G., Fond, C., Clément, E., 2003. Overshoot effect in the janssen granular column: A crucial test for granular mechanics. *Physical Review E* 67. 73 cites:.
- Schirrer, R., Fond, C., 1995. Quelques aspects de la rupture des polymères : craquelures, microcisiailllements et renforcement aux chocs. *Revue de Métallurgie* 92, 1027–1042. 2 cites:.

- Schirrer, R., Fond, C., Lobbrecht, A., 1996a. The damage mechanisms in rubber toughened pmma. IUTAM Symposium on Micromechanics of Plasticity and Damage of Multiphase Materials , 247–253Query date: 2022-03-31 13:52:35.
- Schirrer, R., Fond, C., Lobbrecht, A., 1996b. Volume change and light scattering during mechanical damage in polymethylmethacrylate toughened with core-shell rubber particles. Journal of Materials Science 31, 6409–6422. 32 cites:.
- Schnell, B., Meyer, H., Fond, C., Wittmer, J.P., Baschnagel, J., 2011. Simulated glass-forming polymer melts: Glass transition temperature and elastic constants of the glassy state. The European Physical Journal E 34. 46 cites:.
- Solar, M., Meyer, H., Gauthier, C., Fond, C., Benzerara, O., Schirrer, R., Baschnagel, J., 2012a. Mechanical behavior of linear amorphous polymers: Comparison between molecular dynamics and finite-element simulations. Physical Review E 85. 15 cites:.
- Solar, M., Meyer, H., Gauthier, C., Fond, C., Benzerara, O., Schirrer, R., Baschnagel, J., 2012b. Publisher's note: Mechanical behavior of linear amorphous polymers: Comparison between molecular dynamics and finite-element simulations [phys. rev. e85, 021808 (2012)]. Physical Review E 85. Query date: 2022-03-31 13:52:35.
- Tinard, V., Brinster, M., Francois, P., Fond, C., 2018. Experimental assessment of sound velocity and bulk modulus in high damping rubber bearings under compressive loading. Polymer Testing 65, 331–338. 6 cites:.
- Tinard, V., François, P., Fond, C., 2021a. The potential scope of the ultrasonic surface reflection method towards mechanical characterisation of isotropic materials. part 1. a theoretical analysis. Experimental Mechanics 61, 1153–1160. Query date: 2022-03-31 13:52:35.
- Tinard, V., François, P., Fond, C., 2021b. The potential scope of the ultrasonic surface reflection method towards mechanical characterisation of isotropic materials. part 2. experimental results. Experimental Mechanics 61, 1161–1170. Query date: 2022-03-31 13:52:35.

Vallier, B., Magnenet, V., Schmittbuhl, J., Fond, C., 2018. Thm modeling of hydrothermal circulation at rittershoffen geothermal site, france. Geothermal Energy 6. 9 cites:.

Vallier, B., Magnenet, V., Schmittbuhl, J., Fond, C., 2019. Large scale hydrothermal circulation in the deep geothermal reservoir of soultz-sous-forêts (france). Geothermics 78, 154–169. 13 cites:.

Vallier, B., Magnenet, V., Schmittbuhl, J., Fond, C., 2020. Thm modeling of gravity anomalies related to deep hydrothermal circulation at soultz-sous-forêts (france). Geothermal Energy 8.

Violaine, T., Tam, N.Q., Christophe, F., 2015. Experimental study on high damping rubber under combined action of compression and shear. Journal of Engineering Materials and Technology 137.