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## REFEREED FULL PAPERS

- (21) **Plum F & Labonte D (2021)**: *scAnt—an open-source platform for the creation of 3D models of arthropods (and other small objects)*. PeerJ. **9**: e11155.
- (20) **Levillain A, Ahmed S, Kaimaki DM, Schuler S, Barros S, Labonte D, Iatridis JC & Nowlan NC (2021)**: *Prenatal muscle forces are necessary for vertebral segmentation and disc structure, but not for notochord involution in mice*. Eur Cell Mater. *In press*.
- (19) **Labonte D, Robinson A, Bauer U & Federle W (2021)**: *Disentangling the role of surface topography and intrinsic wettability in the prey capture mechanism of Nepenthes pitcher plants*. Acta Biomater. **119**: 225–233.
- (18) **Nakanishi K, Labonte D, Cebo T, Veigang-Radulescu VP, Fan Y, Brennan B, Pollard AJ, Hofmann S & Fleck NA (2020)**: *Mechanical properties of the hollow-wall graphene gyroid lattice*. Acta Mat. **201**: 254–265.
- (17) **Labonte D, Strücker MY, Birn-Jeffery AV & Federle W (2019)**: *Shear-sensitive adhesion enables size-independent adhesive performance in stick insects*. Proc R Soc Lond [Biol]. **286**: 20191327.
- (16) **Federle W & Labonte D (2019)**: *Dynamic biological adhesion: mechanisms for controlling attachment during locomotion*. Phil Trans R Soc B. **374**(1784): 20190199.
- (15) **Johnston RE, Mitchell RL, Pleydell-Pearce C, Coleman M, North L, Labonte D, Oyen M, Board R, Pope EC, Arora H & Howells D (2019)**: *Correlating Microstructure to in situ Micromechanical Behaviour and Toughening Strategies in Biological Materials*. Microscopy and Microanalysis. **25**(S2): 372–73.
- (14) **Patrick JG, Labonte D & Federle W (2018)**: *Scaling of claw sharpness: Mechanical constraints reduce attachment performance in larger insects*. JEB. **221**(24): jeb188391.
- (13) **North L, Labonte D, Oyen ML, Coleman MP, Caliskan HB, Johnston R (2017)**: *Interrelated chemical-microstructural-nanomechanical variations in the structural units of the cuttlebone of Sepia officinalis*. APL Materials. **5**(11): 116103
- (12) **Labonte D, Lenz AK, & Oyen ML (2017)**: *On the relationship between indentation hardness and modulus, and the damage resistance of biological materials*. Acta Biomater. **57**: 373–383
- (11) **Graupner N, Labonte D & Müssig J (2017)**: *Rhubarb petioles inspire biodegradable cellulose fibre-reinforced PLA composites with increased impact strength*. Composites Part A. **98**: 218–226.
- (10) **Graupner N, Labonte D, Humburg H, Buzkan T, Dörgens A, Kelterer W & Müssig J (2017)**: *Functional gradients in the pericarp of the green coconut inspire asymmetric fibre-composites with improved impact strength, and preserved flexural and tensile properties*. Bioinspir Biomim. **12**(2): 026009.
- (9) **Labonte D & Federle W (2016)**: *Biomechanics of shear-sensitive adhesion in climbing animals: peeling, pre-tension and sliding-induced changes in interface strength*. J R Soc Int. **13**(122): 20160373.
- (8) **Labonte D, Clemente CJ, Dittrich A, Kuo C, Crosby AJ, Irschick DJ & Federle WF (2016)**: *Extreme positive allometry of animal adhesive pads and the size-limits of adhesion-based climbing*. PNAS. **115**(5): 201519459.
- (7) **Labonte D & Federle W (2015)**: *Rate-dependence of ‘wet’ biological adhesives and the function of the pad secretion in insects*. Soft Matter **11**: 8661–73.
- (6) **Hackmann A, Delacave H, Robinson A, Labonte D & Federle W (2015)**: *Functional morphology and efficiency of the antenna cleaner in Camponotus rufifemur ants*. R Soc Open Sci **2**(7): 150129.
- (5) **Labonte D & Federle W (2015)**: *Scaling and biomechanics of surface attachment in climbing animals*. Phil Trans R Soc B **370**: 20140027.
- (4) **Fonville JM, Wilks SH, James SL, Fox A, Ventresca M, Aban M, Xue L, Jones TC, Le NM, Pham QT, Tran ND, Wong Y, Mosterin A, Katzelnick LC, Labonte D, Le TT, van der Net G, Skepner E, Russell**

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(3) **Akerboom S, Appel J, Labonte D, Federle W, Sprakel J & Kamperman M (2014)**: *Enhanced adhesion of bio-inspired nanopatterned elastomers via colloidal surface assembly*. J R Soc Interface. **12**(102):20140034.

(2) **Labonte D, Williams JA & Federle W (2014)**: *Surface contact and design of fibrillar ‘friction pads’ in stick insects (Carausius morosus): mechanisms for large friction coefficients and negligible adhesion*. J R Soc Interface. **11**:20140034.

(1) **Labonte D & Federle W (2013)**: *Functionally different pads on the same foot allow control of attachment: stick insects have load-sensitive ‘heel’ pads for friction and shear-sensitive ‘toe’ pads for adhesion*. PLoS ONE **8**(12): e81943.

#### CONFERENCE PROCEEDINGS

(2) **Müssig J, Graupner N & Labonte D. (2016)**: *Man-made composite structures inspired by plants*. In: Madsen B, Biel A, Kusano Y, Lilholt H, Mikkelsen LP, Mishnaevsky Jr. L & Sørensen BF (Eds): *Understanding performance of composite materials - mechanisms controlling properties*. Proceedings of the 37<sup>th</sup> Risø International Symposium on Materials Science, Roskilde, Denmark, Department of Wind Energy, Technical University of Denmark, Roskilde, Denmark, 2016, ISBN: 978-87-93278-94-3, p. 395–407

(1) **Graupner N, Bremer M, Labonte D, Schmid A, Müssig J (2010)**: *Bionische Faserverbundwerkstoffe & natürliche Grenzschichten - Roter Rhabarber (Rheum rhabarbarum)*. In: Kesel, AB & Zehren, D (Eds): *Bionik: Patente aus der Natur - 5. Bremer Bionik Kongress 2010*. Saarbrücken: Gesellschaft für Technische Biologie & Bionik (GTBB) e.V., (ISBN 978-3-00-033467-2), pp. 215–221.