

Séminaire

mardi 5 novembre 2024 à 10h30
Amphithéâtre Henri Benoît

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Spontaneous charging of sliding water drops on polymer surfaces

Water drops moving on surfaces are not only an everyday phenomenon seen on windows but also form an essential part of many industrial processes. Like in triboelectricity, moving drops can separate electric charges. This phenomenon is called *slide electrification*. Typically, water drops sliding down hydrophobic surfaces spontaneously acquire a positive charge while they deposit negative charges on the solid surface. A mechanism leading to charge separation will be proposed. Consequences of charging for drop motion, a possible degradation of the substrate and the deposition of charge molecules.

Acknowledgements

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References

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2. X. Li, P. Bista, A. Stetten, H. Bonart, M.T. Schür, S. Hardt, F. Bodziony, H. Marschall, A. Saal, X. Deng, R. Berger, S. Weber, H.-J. Butt, *Nature Physics* **2022**, *18*, 713.
3. X. Li, A.D. Ratschow, S. Hardt, H.-J. Butt, *Phys. Rev. Lett.* **2023**, *131*, 228201

Les personnes souhaitant rencontrer H.-J. Butt sont priées de prendre contact avec Wiebke Drenckhan.