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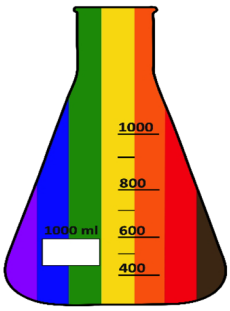
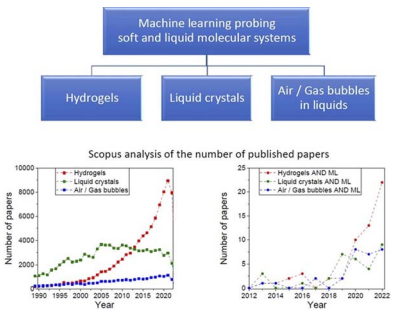
See Isaac Squires *et al.*, pp. 316–326. Image reproduced by permission of Isaac Squires and Keion Ing, *Digital Discovery*, 2023, **2**, 316.

OPINION



REVIEW



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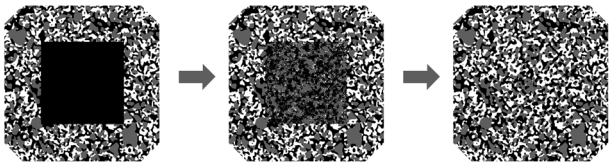
Artefact removal from micrographs with deep learning based inpainting

Isaac Squires,* Amir Dahari, Samuel J. Cooper and Steve Kench



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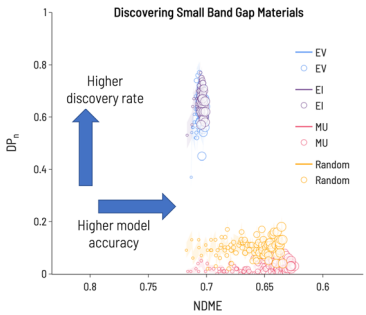
Christopher K. H. Borg,* Eric S. Muckley, Clara Nyby, James E. Saal, Logan Ward, Apurva Mehta and Bryce Meredig



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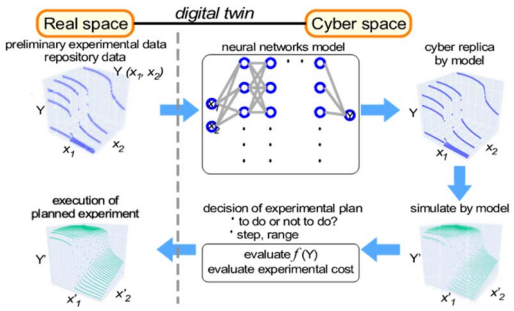

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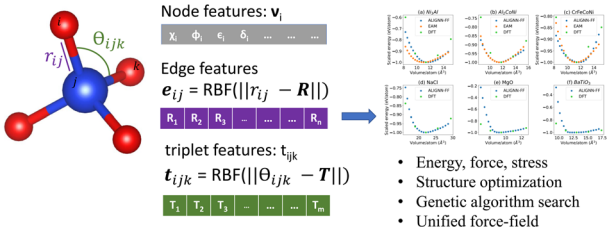
Unified graph neural network force-field for the periodic table: solid state applications

Kamal Choudhary,* Brian DeCost, Lily Major, Keith Butler, Jeyan Thiyagalingam and Francesca Tavazza



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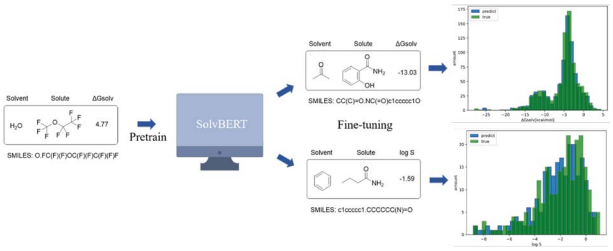
SolvBERT for solvation free energy and solubility prediction: a demonstration of an NLP model for predicting the properties of molecular complexes

Jiahui Yu, Chengwei Zhang, Yingying Cheng, Yun-Fang Yang, Yuan-Bin She, Fengfan Liu, Weike Su and An Su*



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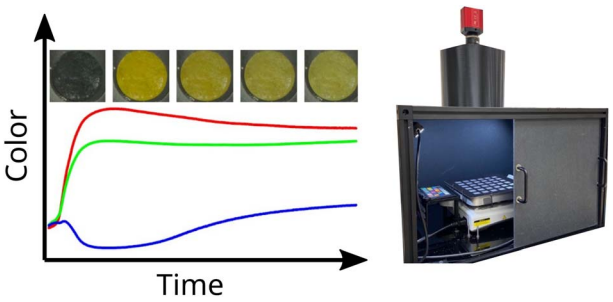
An open-source environmental chamber for materials-stability testing using an optical proxy

Rodolfo Keesey,* Armi Tiihonen,* Alexander E. Siemenn, Thomas W. Colburn, Shijing Sun, Noor Titan Putri Hartono, James Serdy, Margaret Zeile, Keqing He, Cole A. Gurtner, Austin C. Flick, Clio Batali, Alex Encinas, Richa R. Naik, Zhe Liu, Felipe Oviedo, I. Marius Peters, Janak Thapa, Siyu Isaac Parker Tian, Reinhold H. Dauskardt, Alexander J. Norquist* and Tonio Buonassisi*



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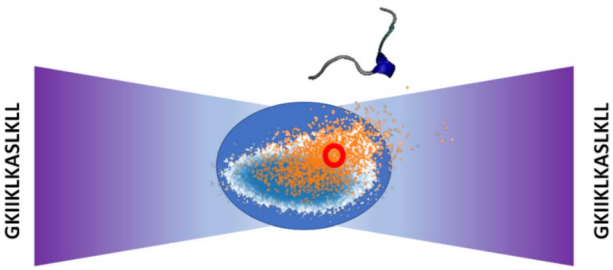
Latent spaces for antimicrobial peptide design

Samuel Renaud and Rachael A. Mansbach*



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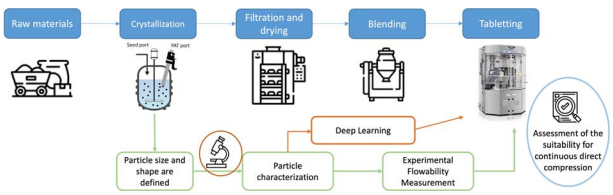
Predicting pharmaceutical powder flow from microscopy images using deep learning

Matthew R. Wilkinson,* Laura Pereira Diaz, Antony D. Vassileiou, John A. Armstrong, Cameron J. Brown, Bernardo Castro-Dominguez and Alastair J. Florence*



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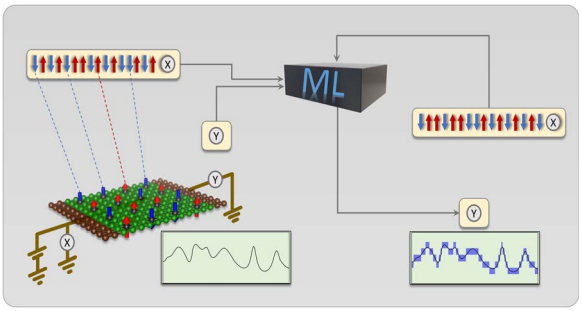

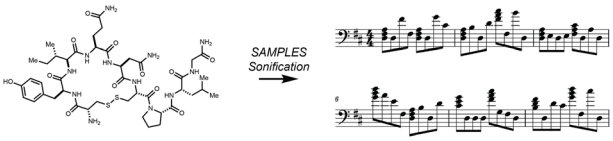

Molecular analysis, modification, and interpolation with music.