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Influence of hydrogen on the elastic properties of nickel single crystal: A numerical and experimental investigation

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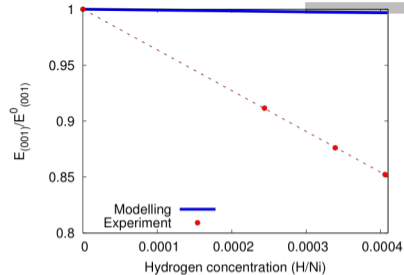
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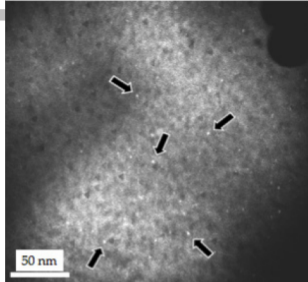
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Evolution of Young's Modulus from experiment and calculations with H concentration

- Diminution of E
- Large discrepancies between both approaches



TEM image of Ni single crystal after H incorporation

- Formation of vacancy clusters (white dots)
- Vacancy clusters impact more the elastic properties of Ni than the solute

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