

LIST OF PUBLICATIONS

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Refereed Journals

1. Marco E. Rosti, **Satyajit Pramanik**, Luca Brandt, Dhruvaditya Mitra, The breakdown of Darcy's law in a soft porous material, *Soft Matter*–accepted (2020), Preprint: [arXiv](#).
2. Vandita Sharma, Sada Nand, **Satyajit Pramanik**, Ching-Yao Chen, Manoranjan Mishra, Control of radial miscible viscous fingering, *Journal of Fluid Mechanics*, **884**, A16 (2020).
3. Chinar Rana, **Satyajit Pramanik**, Michel Martin, Anne De Wit, Manoranjan Mishra, Influence of Lang-muir adsorption and viscous fingering on transport of finite size samples in porous media, *Physical Review Fluids* **4**, 104001 (2019).
4. **Satyajit Pramanik**, John S. Wettlaufer, Confinement induced control of similarity solutions in pre-melting dynamics and other thin film problems, *SIAM Journal on Applied Mathematics* **79(3)**, 938-958 (2019).
5. Vandita Sharma, **Satyajit Pramanik**, Ching-Yao Chen, Manoranjan Mishra, A numerical study on reaction-induced radial fingering instability, *Journal of Fluid Mechanics* **862**, 624-638 (2019).
6. **Satyajit Pramanik**, John S. Wettlaufer, Confinement effects in premelting dynamics, *Physical Review E* **96**, 052801 (2017).
7. Vandita Sharma, **Satyajit Pramanik**, Manoranjan Mishra, Dynamics of highly viscous circular blob in homogeneous porous media, *Fluids* **2(2)**, 32 (2017). (An invited article in the special issue “Convective Instability in Porous Media”).
8. **Satyajit Pramanik**, Manoranjan Mishra, Fingering instability and mixing of a blob in porous media, *Physical Review E* **94**, 043106 (2016). (Figure 14a is selected for **Kaleidoscope of PRE for the month of October 2016**).
9. **Satyajit Pramanik**, Manoranjan Mishra, Coupled effect of viscosity and density gradients on fingering instabilities of a miscible slice in porous media, *Physics of Fluids* **28**, 084104 (2016).
10. Tapan Kumar Hota, **Satyajit Pramanik**, Manoranjan Mishra, Nonmodal linear stability analysis of miscible viscous fingering in porous media, *Physical Review E* **92**, 053007 (2015).
11. **Satyajit Pramanik**, Anne De Wit, Manoranjan Mishra, Viscous fingering and deformation of a miscible circular blob in a rectilinear displacement in porous media, *Journal of Fluid Mechanics (Rapids)* **782**, R2 (2015).
12. **Satyajit Pramanik**, Tapan Kumar Hota, Manoranjan Mishra, Influence of viscosity contrast on buoyantly unstable miscible fluids in porous media, *Journal of Fluid Mechanics* **780**, 388-406 (2015).
13. Tapan Kumar Hota, **Satyajit Pramanik**, Manoranjan Mishra, Onset of fingering instability in a finite slice of adsorbed solute, *Physical Review E* **92**, 023013 (2015).
14. **Satyajit Pramanik**, Manoranjan Mishra, Viscosity scaling of fingering instability in finite slices with Korteweg stress, *Europhysics Letters* **109**, 64001 (2015).

15. **Satyajit Pramanik**, Manoranjan Mishra, Effect of Peclet´ number on miscible rectilinear displacement in a Hele-Shaw cell, [Physical Review E **91**, 033006 \(2015\)](#).
16. **Satyajit Pramanik**, Manoranjan Mishra, Nonlinear simulation of miscible viscous fingering with gradient stresses, [Chemical Engineering Science **122**, 523-532 \(2015\)](#).
17. **Satyajit Pramanik**, Manoranjan Mishra, Comparison of Korteweg stresses effect on the fingering instability of higher or less viscous miscible slices: Linear stability analysis, [Chemical Engineering Science **110**, 144-152 \(2014\)](#).
18. **Satyajit Pramanik**, Manoranjan Mishra, Linear stability analysis of Korteweg stresses effect on miscible viscous fingering in porous media, [Physics of Fluids **25**, 074104 \(2013\)](#).