

Supplementary Material

Evaluating the Skin Interactions and Permeation of Alginate/Fucoidan Hydrogels *Per Se* and Associated with Different Essential Oils

Ana Isabel Barbosa ¹, Sofia A. Costa Lima ^{2,*}, Ibraheem Yousef ³ and Salette Reis ¹

¹ LAQV, REQUIMTE, Departamento de Ciências Químicas, Faculdade de Farmácia, Universidade do Porto, Rua de Jorge Viterbo Ferreira, 228, 4050-313 Porto, Portugal

² LAQV, REQUIMTE, Departamento de Química, Instituto de Ciências Biomédicas de Abel Salazar, Universidade do Porto, Rua de Jorge Viterbo Ferreira, 228, 4050-313 Porto, Portugal

³ ALBA Synchrotron, Carrer de la Llum 2-26, Cerdanyola del Vallès, 08290 Barcelona, Spain

* Correspondence: slima@icbas.up.pt

Table S1. Evaluation of lipid scissoring band shifts in all essential oils and essential oil-enriched hydrogels in comparison to the untreated sample.

	Scissoring	
Menthol	1454	1468
Linalool	1452	1468
Bergamot	1452	1468
Pinene	1452	1468
Untreated	1454	1468
Alginate/fucoidan	1454	1468
Menthol-alginate/fucoidan	1454	1469
Linalool-alginate/fucoidan	1452	1468
Bergamot-alginate/fucoidan	1456	1468
Pinene-alginate/fucoidan	1452	1468

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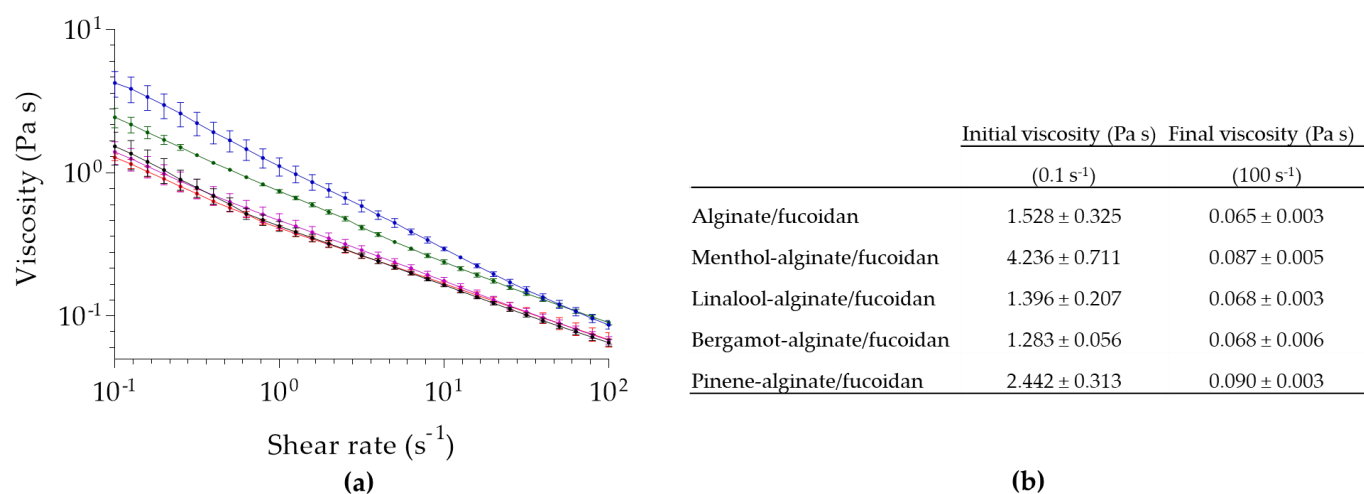


Figure S1. Analysis of (a) viscosity as a function of shear rate of alginate/fucoidan (black), menthol-alginate/fucoidan (blue), linalool-alginate/fucoidan (magenta), bergamot-alginate/fucoidan (red) and pinene-alginate/fucoidan (green). Calculated values of initial (minimum shear rate – $0.1 s^{-1}$) and final (maximum shear rate – $100 s^{-1}$) viscosity (b). Data expressed as mean \pm SD of $n=3$ different hydrogel batches.

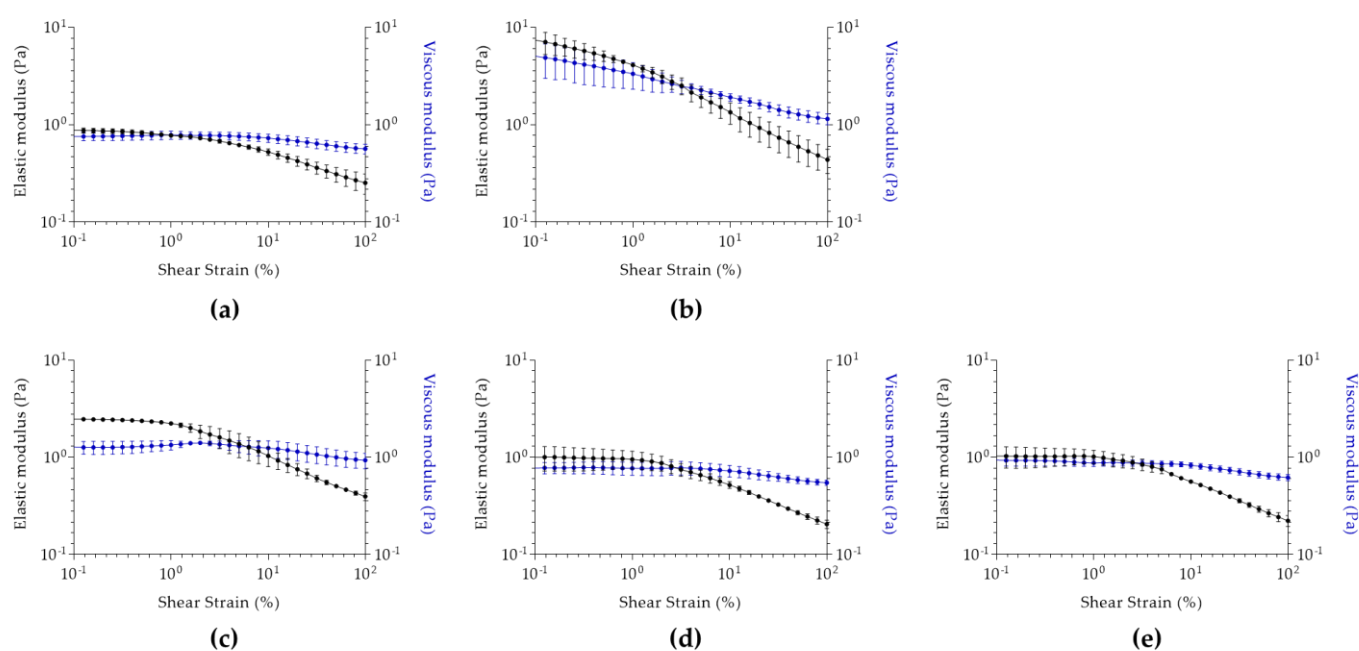


Figure S2. Resistance to deformation analysis from determination of linear viscoelastic region of (a) alginate/fucoidan, (b) menthol-alginate/fucoidan, (c) linalool-alginate/fucoidan, (d) bergamot-alginate/fucoidan and (e) pinene-alginate/fucoidan. Data expressed as mean \pm SD of $n=3$ different hydrogel batches.

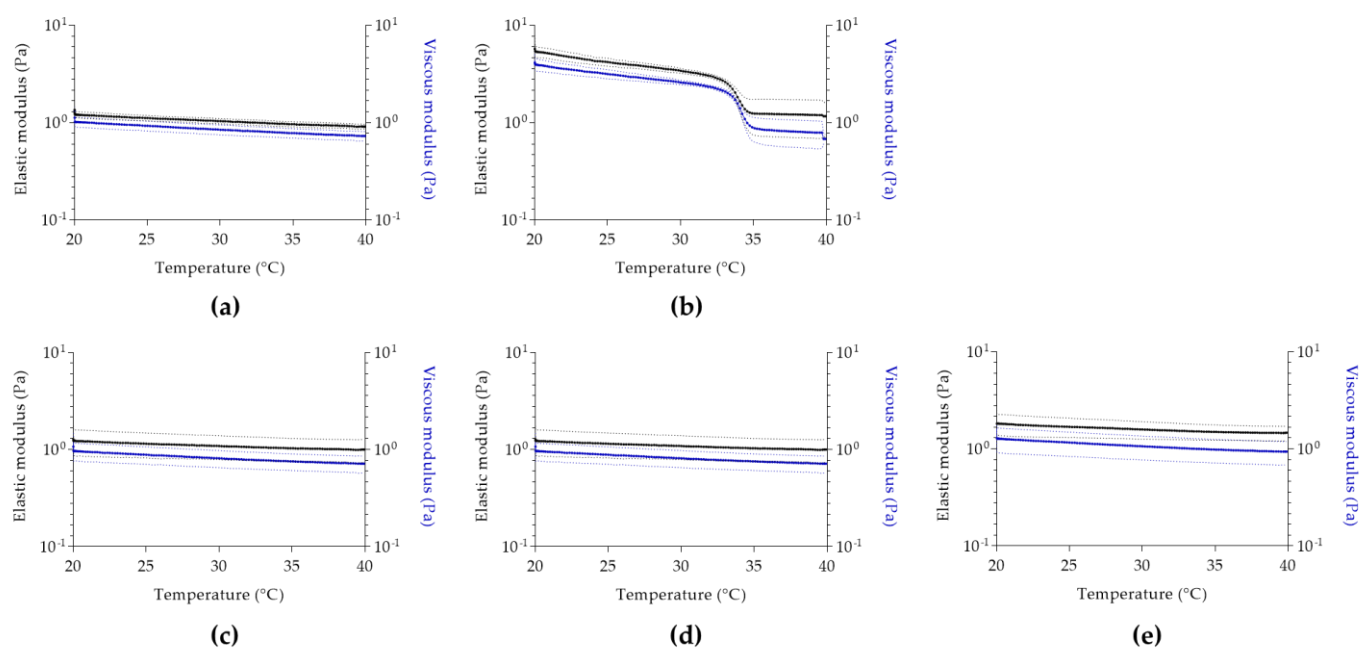


Figure S3. Resistance to temperature ramp from 20 to 40 °C of (a) alginate/fucoidan, (b) menthol-alginate/fucoidan, (c) linalool-alginate/fucoidan, (d) bergamot-alginate/fucoidan and (e) pinene-alginate/fucoidan. Data expressed as mean \pm SD of $n=3$ different hydrogel batches.

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