UNIVERSITAS
GADJAH MADA
Efek Elektrohidrodinamika Frekuensi Rendah pada Kristal Cair Nematik untuk Sel Termodifikasi Nanofiber sebagai Lapisan Penyearah dan Sel Parallelepiped
BHISMA MAHENDRA, Prof. Dr. Yusril Yusuf, M.Eng.; Dr. Fahrudin Nugroho, M.Si.
Universitas Gadjah Mada, 2020 | Diunduh dari http://etd.repository.ugm.ac.id/

Daftar Pustaka

Baji, A., Mai, Y.W., Wong, S.C., Abtahi, M., dan Chen, P., (2010) 'Electrospinning of polymer nanofibers: Effects on oriented morphology, structures dan tensile properties', *Composites Science and Technology*. Elsevier Ltd, 70(5), pp. 703–718.

Bhardwaj, N. dan Kundu, S. C., (2010) 'Electrospinning: A fascinating fiber fabrication technique', *Biotechnology Advances*, 28(3), pp. 325–347.

Blinov, L. M. dan Chigrinov, V. G., (1994) *Electrooptic Effects in Liquid Crystal Materials*, *Springer-Verlag New York*. New York, NY: Springer New York (Partially Ordered Systems).

Chandrasekhar, S., (1992) *Liquid Crystals*. Cambridge: Cambridge university press.

Chang, C., Limkrailassiri, K. dan Lin, L., (2008) 'Continuous near-field electrospinning for large area deposition of orderly nanofiber patterns', *Applied Physics Letters*, 93(12), pp. 2–5. doi: 10.1063/1.2975834.

Chotimah, *Rianjanu, R., Winardianto, B., Munir, M., Kartini, I., dan Triyana, K.*, (2016) 'Electrical Conductivity Improvement of Polyvinyl Alcohol Nanofiber by Solvent Vapour Treatment', *International Journal on Advanced Science, Engineering and Information Technology*, 6(5). doi: 10.18517/ijaseit.6.5.1055.

Dersch, R., Liu, T., Schaper, A. K., Greiner, A., Wendorff, J. H., (2003) 'Electrospun nanofibers: Internal structure and intrinsic orientation', *Journal of Polymer Science, Part A: Polymer Chemistry*, 41(4), pp. 545–553. doi: 10.1002/pola.10609.

Geng, X., Kwon, O. H. dan Jang, J., (2005) 'Electrospinning of chitosan dissolved in concentrated acetic acid solution', *Biomaterials*, 26(27), pp. 5427–5432. doi: 10.1016/j.biomaterials.2005.01.066.

Hirakawa, K. dan Kai, S., (1977) 'Analogy between Instabilities in Isotropic Fluid and Nematic Liquid Crystal', *Molecular Crystals and Liquid Crystals*, 40(1), pp. 261–284.

Hoogboom, J., Rasing, T., Rowan, E. A., dan Nolte, R. J. M., (2006) 'LCD alignment layers. Controlling nematic domain properties', *Journal of*

UNIVERSITAS
GADJAH MADA
Efek Elektrohidrodinamika Frekuensi Rendah pada Kristal Cair Nematik untuk Sel Termodifikasi Nanofiber sebagai Lapisan Penyearah dan Sel Parallelepiped
BHISMA MAHENDRA, Prof. Dr. Yusril Yusuf, M.Eng.; Dr. Fahrudin Nugroho, M.Si.
Universitas Gadjah Mada, 2020 | Diunduh dari http://etd.repository.ugm.ac.id/

Materials Chemistry, 16(14), pp. 1305–1314. doi: 10.1039/b510579j.

Horikawa, A. dan Huh, J. H., (2019) 'Traveling waves in one-dimensional electroconvection of nematic liquid crystals', *Journal of the Physical Society of Japan*, 88(3), pp. 1–6.

Huang, C., Chen, S., Reneker, D. H., Lai, C., dan Hou, H., (2006) 'High-strength mats from electrospun poly(p-phenylene biphenyltetracarboximide) nanofibers', *Advanced Materials*, 18(5), pp. 668–671.

Huh, J. H. dan Kai, S., (2003), Electroconvection in nematic liquid crystals in Helle-Shaw cells, *Physican Review E, 68, 042702*

Huh, J. H., (2018) 'Electroconvection in one-dimensional liquid crystal cells', *Physical Review E*. American Physical Society, 97(4), pp. 1–11.

Huh, J. H., Kuribayashi, A. dan Kai, S., (2009) 'Noise-controlled pattern formation and threshold shift for electroconvection in the conduction and dielectric regimes', *Physical Review E - Statistical, Nonlinear, and Soft Matter Physics*, 80(6), pp. 1–9.

Kai, S. dan Hirakawa, K., (1976) 'Phase Diagram of dissipative structure in the', *Solid State communications*, 18(1), pp. 1573–1577.

Kai, S., Yamaguchi, K. dan Hirakawa, K., (1975) 'Observation of Flow Figures in Nematic Liquid Crystal MBBA', *Japanese Journal of Applied Physics*, 14(11), pp. 1653–1658.

Kai, S., Yoshitsune, N. dan Hirakawa, K., (1975) 'Measurement of the flow velocity in a nemaitc liquid crystals', *Journal of physical society of japan*.

Kai, S. dan Zimmermann, W., (1989) 'Pattern Dynamics in the Electro hydrodynamics of Nematic Liquid Crystals --Defect Patterns, Transition to Turbulence and Magnetic Field Effects', *Progress of Theoretical Physics Supplement*, 99(99), pp. 458–492.

Katona, T., Verges, A. C., Eber, N., Buka A., (2007) 'Nonstandar electroconvection with Hopf bifurcation in nematic liquid crystal with negative electric anisotropies, *Physical Review E*, 75, 066210, pp. 1-12.

Katta, P., Alessandro, R., Ramsier, D., dan Chase, G. G., (2004) 'Continuous electrospinning of aligned polymer nanofibers onto a wire drum collector', *Nano Letters*, 4(11), pp. 2215–2218.

Li, D., Wang, Y. dan Xia, Y. (2003) 'Electrospinning of polymeric and ceramic nanofibers as uniaxially aligned arrays', *Nano Letters*, 3(8), pp. 1167–1171.

Orsay Liquid Crystal Group, (1971), 'AC and DC Regimes of the

UNIVERSITAS
GADJAH MADA
Efek Elektrohidrodinamika Frekuensi Rendah pada Kristal Cair Nematik untuk Sel Termodifikasi Nanofiber sebagai Lapisan Penyearah dan Sel Parallelepiped
BHISMA MAHENDRA, Prof. Dr. Yusril Yusuf, M.Eng.; Dr. Fahrudin Nugroho, M.Si.
Universitas Gadjah Mada, 2020 | Diunduh dari http://etd.repository.ugm.ac.id/

Electrohydrodynamic Instabilities in Nematic Liquid Crystals', *Molecular Crystals and Liquid Crystals*, 12(3), pp. 251–266. doi: 10.1080/15421407108082778.

P. G. De Gennes; dan Pros, J., (1993) *The Physics of Liquid Crystals*. Clarendon Press:Oxford.

Pokorny, M., Niedoba, K. dan Velebny, V., (2010) 'Transversal electrostatic strength of patterned collector affecting alignment of electrospun nanofibers Transversal electrostatic strength of patterned collector affecting alignment of electrospun nanofibers', *Applied Physics Letters*, 96(19), p. 193111.

Ramakrishna, S., Fujihara, K., Teo, W. E., Lim, T.C., dan Ma, Z., (2005) *An Introduction to Electrospinning and Nanofibers*, *Man-Made Textiles in India*. World Scientific Publishing Co. Pte. Ltd.

Ramalingam, K. J., Dhineshbabu, N. R., Srither, S. R., dan Saravanakumar, B., (2014) 'Electrical measurement of PVA/graphene nanofibers for transparent electrode applications', *Synthetic Metals*. Elsevier B.V., 191, pp. 113–119.

Reneker, D. H., Yarin, A. L., dan Fong, H., (2000) 'Bending instability of electrically charged liquid jets of polymer solutions in electrospinning', *Journal of Applied Physics*, 87(9), p. 4531.

Reneker, D. H. Yarin, A. L., Zussman, E., dan Xu, H., (2007) 'Electrospinning of Nanofibers from Polymer Solutions and Melts', *Polymer*.

Sato, Y., Sato, K. dan Uchida, T. (1992) 'Relationship between Rubbing Strength and Surface Anchoring of Nematic Liquid Crystal', *Japanese Journal of Applied Physics*, 31(5), pp. L579–L581.

Seo, D.-S. (2000) 'Influence of the washing process on the aligning capability of a nematic liquid crystal on polymer surfaces', *Liquid Crystals*, 27(6), pp. 789–793.

Sun, D., Chang, C., Li, S., dan Lin, L., (2006) 'Near-field electrospinning', *Nano Letters*, 6(4), pp. 839–842.,

Toan, D. Q., Ozaki, R. dan Moritake, H. (2014) 'Director orientation of nematic liquid crystal using orientated nanofibers obtained by electrospinning', *Japanese Journal of Applied Physics*, 53(1 PART 2), pp. 3–7.

Tóth-Katona, T., Vergnes, A. C., Eber, N., dan Buka, A., (2007) 'Nonstandard electroconvection with Hopf bifurcation in a nematic liquid crystal with negative electric anisotropies', *Physical Review E - Statistical, Nonlinear, and Soft Matter Physics*, 75(6), pp. 1–12.

UNIVERSITAS
GADJAH MADA
Efek Elektrohidrodinamika Frekuensi Rendah pada Kristal Cair Nematik untuk Sel Termodifikasi Nanofiber sebagai Lapisan Penyearah dan Sel Parallelepiped
BHISMA MAHENDRA, Prof. Dr. Yusril Yusuf, M.Eng.; Dr. Fahrudin Nugroho, M.Si.
Universitas Gadjah Mada, 2020 | Diunduh dari http://etd.repository.ugm.ac.id/

Treiber, M. dan Kramer, L. (1995) 'Bipolar electrodiffusion model for electroconvection in nematics', *Molecular Crystals and Liquid Crystals Science and Technology. Section A. Molecular Crystals and Liquid Crystals*, 261(1), pp. 311–326.

Triyana, K., Mu'min, M. S., Faizah, K., Yusuf, Y., Kusumaatmaja, A., dan Harsojo, (2015) 'Electrospun Nanofibers Based on Polyvinyl Alcohol/Chitosan and its Stability in KOH Solution', *Materials Science Forum*, 827, pp. 321–325.

Wei, X., Hong, S. C., Zhuang, X., Goto, T., dan Shen, Y. R., (2000) 'Nonlinear optical studies of liquid crystal alignment on a rubbed polyvinyl alcohol surface', *Physical review. E, Statistical physics, plasmas, fluids, and related interdisciplinary topics*, 62(4 Pt A), pp. 5160–72.

Williams, R., (1963) 'Domains in liquid crystals', *The Journal of Chemical Physics*, 39(2), pp. 384–388.

Yan, H., Liu, L. dan Zhang, Z., (2009) 'Alignment of electrospun nanofibers using dielectric materials', *Applied Physics Letters*, 95(14), p. 143114.

Yang, D.-K. dan Wu, S.-T., (2006) *Fundamentals of Liquid Crystal Devices*, *Fundamentals of Liquid Crystal Devices*. Chichester, UK: John Wiley & Sons, Ltd.

Yang, Y., Jia, Z., Li, Q., Wang, L., dan Guan, Z., (2007) 'Improving electrospinning nanofibers alignment in a large area by using a insulating tube on the collector', *2007 International Conference on Solid Dielectrics, ICSD*, pp. 419–422.

Yao, Y., Gu, Z. Z., Zhang, J., Pan, C., Zhang, Y., dan Wei, H. (2007) 'Fiber-oriented liquid crystal polarizers based on anisotropic electrospinning', *Advanced Materials*, 19(21), pp. 3707–3711.

Yusuf, Y., Ula, N. M., Jahidah, K., Kusumasari, E. M., Triyana, K., Sosiati, H., dan Harsojo, (2016a) 'Study of parallel oriented electrospun polyvinyl alcohol (PVA) nanofibers using modified electrospinning method', *AIP Conference Proceedings*, 1725(020104), pp. 0–6.

Yusuf, Y., Kusumasari, E. M., Ula, N. M., Jahidah, K., Triyana, K., Sosiati, H., dan Harsojo, (2016b) 'Optical properties of planar nematic liquid crystals samples which are parallel oriented by nanofibers', *AIP Conference Proceedings*, 1725(020103), pp. 0–5.

Yusuf, Y., Hidaka, Y. dan Kai, S., (2013) 'Dynamical behavior of prewavy pattern near nematic-isotropic transition', *Journal of the Physical Society of Japan*, 82(4), pp. 2–4.