DAFTAR PUSTAKA

Wu, Ting dkk.2013. *Spatial Relationship Between Lightning Narrow Bipolar Events And Parent Thunderstorms As Revealed By Phased Array Radar* .Jurnal. Volume 40. Geophysical Research Letter.

Suszcynsky, D.M dan M. J. Heavner.2003. *Narrow Bipolar Events As Indicators Of Thunderstorm Convective Strength* .Jurnal.USA: Los Alamos National Laboratory, Space and Atmospheric Sciences Group, Los Alamos, New Mexico.

Ahmad, Noor Azlinda.2011.*Broadband and HF Radiation From Cloud Flashes and Narrow Bipolar Pulses*.Acta Universitatis Upsaliensis Uppsala:Uppsala Disertation from The Faculty Of Sciensce And Technology 822.

Wu, Ting dkk.2012. *Discharge height of lightning narrow bipolar events* .Jurnal. Volume 117. Geophysical Research Letter.

Wu, Ting dkk.2012.*Large Bipolar Lightning discharge events in winter Thunderstroms In Japan.jurnal*. Volume 117. Geophysical Research Letter.

Sumedhe, Karunarathne dkk.2015. *Observation of positive Narrow Bipolar Pulses*.Jurnal.Agu Publications. Geophysical Research : Atmospheres.

T.A.L.N. Gunasekara ,dkk.2015. *Characteristics of Narrow Bipolar Pulses observed from lightning in Sri Lanka.* Journal of Atmospheric and Solar-Terrestrial Physics 138-139 (2016) 66–73

Mohd Esa , Mona Riza. 2014. *Temporal and Wavelet Characteristics of Initial Breakdown and Narrow Bipolar Pulses of Lightning Flashes.*Digital Comprehensive Summaries of Uppsala Dissertations Faculty of Science and Technology 1190.

S.R. Sharma , dkk . 2007. *Narrow positive bipolar radiation from lightning observed in Sri Lanka.* Journal of Atmospheric and Solar-Terrestrial Physics 70 (2008) 1251– 1260

Ting Wu , dkk.2012-2013. *Large bipolar lightning discharge events in winter thunderstorms in Japan.* Journal of Geophysical Research: Atmospheres (2014) DOI:10.1002/2013JD020369

D. M. Suszcynsky and M. J. Heavner . 2003. *Narrow Bipolar Events as indicator of thunderstorm convective strength.* GEOPHYSICAL RESEARCH LETTERS, VOL. 30, NO. 17, 1879, doi:10.1029/2003GL017834, 2003

Ting Wu, dkk. 2012. *Spatial relationship between lightning narrow bipolar events and parent thunderstorms as revealed by phased array radar*. GEOPHYSICAL RESEARCH LETTERS, VOL. 40, 618–623, doi:10.1002/grl.50112, 2013

Harianto , Budi.2016. *KARAKTERISTIK PERUBAHAN MEDAN LISTRIK PADA PETIR NARROW BIPOLAR EVENTS (NBEs).* Skripsi :Teknik Elektro Universitas Andalas : Padang

Sirait,K.T. dan Zorro (1987). *Proteksi Terhadap Tegangan Lebih Pada Sistem Tenaga Listrik*. Bandung: ITB

http://www.weatherwatch.co.nz/content/science-behind-lightning-how-it-works. Diunduh pada 04 Maret 2016 Pkl.11.57 WIB

Smith,D.A., Shao, X.M., Holden, D.N., Rhodes, C.T., Brook, M., Krehbiel, P.R., Stanley,M., Rison, W., Thomas, R.J., 1999. *A distinct class of isolated intracloud lightning discharges and their associated radio emissions.* J. Geophys. Res. 104,4189–4212.http://dx.doi.org/10.1029/1998JD200045

Le Vine, D.M., 1980. *Sources of the strongest RF radiation from lightning*. J. Geophys.Res.85,4091 4095.http://dx.doi.org/10.1029/JC085iC07p04091.

Ahmad, N.A., Fernando, M., Bahaudin, Z.A., Cooray, V., Ahmad, H., Malek, Z.A., 2010. *Characteristics of narrow bipolar pulses observed in Malaysia*. J. Atmos.Sol.Terr.Phys.72,534540.http://dx.doi.org/10.1016/j.jastp.2010.02 .006

Medelius, P.J., Thomson, E.M., Pierce, J.S., 1991. *E and DE/DT wave shapes for narrow bipolar pulses in intra-cloud lightning.* In: Proceedings of the International Aerospace and Ground Conference on Lightning and Static Electricity, NASA Conference Publ., vol. 3106, pp. 12-1–12-10

Nag, A., Rakov, V.A., 2008. "*Pulse trains that are characteristic of preliminary breakdown in cloud-to-ground lightning but not followed by return stroke pulses*". Journal of Geophysical Research 113, D01102, http://dx.doi.org/10.1029/ 2007JD008489.

Brook, M., 1992. "*Breakdown electric fields in winter storms*". Research Letter of Atmospheric Electricity 12, 47–52.