Electromagnetic phenomena possibly associated with the 2004 Sumatra-Andaman earthquake

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Despite its extreme importance and years of efforts, practical short-term earthquake prediction still remains to be achieved in future. However, earthquake-related electromagnetic phenomena are recently considered as a promising candidate for short-term earthquake prediction. There have been accumulated a lot of evidences of precursory signatures in a wide frequency range. This paper deals with various electromagnetic phenomena associated with the 2004 Sumatra-Andaman earthquake (M9) in order to show the state of the art of seismo-electromagnetics for prediction research. Both post- and/or co-seismic and pre-seismic phenomena such as ULF geomagnetic and ionospheric disturbances are presented.