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ABSTRACT Daily, minute-to-minute measurements of ground level photon emissions in Sudbury, Ontario Canada displayed conspicuous increases more than one week before the 2011 M9.0 earthquake in Japan and the 2010 M8.8 earthquake in Chile. Temporal profiles of the antecedent increase and subsequent decline in power densities for the two events were remarkably similar. Antecedent changes for $7.0 < M < 7.9$ events during the same period were evident but more subtle. The results suggest the possibility that protracted increases in background photon emissions may precede major (M > 8.0) seismic events anywhere on the planet.					Recommend to Peers	
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Refere	ences F. T. Freund, " Toward a Unified Vol. 58, No. 5, 2010, pp. 719-766.	Solid State Theory for F doi:10.2478/s11600-00	Pre-Earthquake Signals,′)9-0066-x	Acta Geophysica,		
[2]	R. Rikitake, " Earthquake Prediction," Elsevier, Amsterdam, 1976.					
[3]	M. Wyss, " Can Earthquakes Be Predicted?" Science, 1997, Vol. 238, p. 487.					
[4]	. Bernardi, A. C. Fraser-Smith, P. R. McGill and O. G. Villard, "ULF Magnetic Field Measurements Near ne Epicenter for the Ms 7.1 Loma Prieta Earthquake," Physics of the Earth and Planetary Interiors, ol. 68, No. 1-2, 1991, pp. 45-63. doi:10.1016/0031-9201(91)90006-4					
[5]	J. S. Derr, " Earthquake Lights: Seismological Society of America, '	A Review of Observatio Vol. 63, No. 6, 1973, pp.	ons and Present Theorie 2177-2187.	es," Bulletin of the		

- [6] J. S. Derr and M. A. Persinger, " Luminous Phenomena and Seismic Energy in the Central United States," Journal of Scientific Exploration, Vol. 4, No. 1, 1990, pp. 55- 69.
- [7] G. Igarashi, S. Saeki, N. Takahata, K. Sumikawa, S. Tasaka, Y. Sasaki, M. Takahashi and Y. Sano,
 " Ground Water Radon Anomaly before the Kobe Earthquake in Japan," Science, Vol. 269, No. 5220, 1995, pp. 60-64.doi:10.1126/science.269.5220.60
- [8] L. M. Fishkova, M. M. Gokhberg and V. A. Pilipenko, "Relationship between Night Airglow and Seismic Activity," Annales Geophysicae, Vol. 3, 1985, pp. 689-694.
- [9] T. M. Ralchovsky and L. M. Komarov, "Periodicity of Earth Electric Precursors before Strong Earthquakes," Tectonophysics, Vol. 145, No. 3-4, 1988, pp. 325-327.doi:10.1016/0040-1951(88)

- 90204-1
- [10] E. A. Roeloffs, "Hydrologic Precursors to Earthquakes: A Review," Paegoph, Vol. 126, No. 2-4, 1988, pp. 177-209. doi:10.1007/BF00878996
- [11] T. Terada, " On Luminous Phenomena Accompanying Earthquakes," Bulletin of the Earthquake Research Institute of Tokyo University, Vol. 9, 1931, pp. 225-255.
- [12] B. T. Dotta, C. A. Buckner, R. M. Lafrenie and M. A. Persinger, "Biophoton Emissions from Cell Cultures: Biochemical Evidence for the Plasma Membrane as the Primary Source," General Physiology and Biophysics, Vol. 30, 2011, pp. 301-309.
- [13] B. T. Dotta and M. A. Persinger, " ' Doubling' of Local Photon Emissions When Two Simultaneously Spatially-Separated Reactions Share the Same Magnetic Field Configurations," Journal of Biophysical Chemistry, Vol. 3, No. 1, 2012, pp. 72-80. doi: 10.4236/jbpc.2012.31009
- [14] J. W. Warwick, C. Stoker and T. R. Meyer, " Radio Emission Associated with Rock Fracture: Possible Application to the Great Chilean Earthquake of May 22, 1960, Journal of Geophysical Research, Vol.