



Lithosphere–Atmosphere–Ionosphere Coupling (LAIC) model – an unified concept for earthquake precursors validation

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Recent advances in explanation of precursory phenomena registered before latest major earthquakes re established the strong interest to Lithosphere-Atmosphere-Ionosphere Coupling (LAIC) model as a physical background for underlying the nature of earthquake preparation processes. The latest update in LAIC model (Pulinets and Ouzounov, 2010) united the major development for the last 15 years. From the one-directed problem of anomalous electric field penetration from the ground surface into ionosphere the model has transformed into multi-task interdisciplinary subject, where air ionization by radon plays the key role in processes of energy transformation within the atmosphere. It is also realized that the ground radioactivity effects on the atmosphere is only a part of more general problem which has a purpose to reconsider the role of ionization processes in the energy balance of the atmosphere within the frame of the Global Change program. The LAIC model provides both the understanding of the physical processes involved in generation of anomalous atmospheric and ionospheric phenomena before strong earthquakes, and main scale factors to derive from the measured variations the parameters of impending earthquake from one to several days in advance.