



## **Is there a shortcut in the deep carbon cycle?**

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The example of some large igneous provinces emplaced in sedimentary basins (e.g. Siberian Traps, Eimeshan Traps) suggests that volatiles derived from interactions between magmas and volatile-rich sedimentary rocks can sensibly boost carbon emissions of mantle origin. These C emissions are even proposed to have triggered major environmental crises (End-Permian and End-Guadalupian crises). An important contribution from magma-sediment interactions at crustal levels is also proposed for active volcanism. This would explain why C emissions of volcanic origin are so heterogeneously distributed on Earth, independently on the geodynamic setting. Here we discuss the impact of this kind of interactions on the production of C-rich volcanic gases.