

***Interactive comment on “Multicopter measurements of volcanic gas emissions at Masaya (Nicaragua), Turrialba (Costa Rica) and Stromboli (Italy) volcanoes: Applications for volcano monitoring and insights into halogen speciation” by Julian Rüdiger et al.***

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The paper presents a very good description of the possibilities to use new UAV platforms and developed prototype instrumentation to acquire gas data that otherwise will be very difficult to obtain without the risk of human lives. It describes 3 field deployment sites with respective results demonstration the versatility of the combined capability. The paper presents what I believe is part of the beginning of a new standard of

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volcanic gas emission monitoring, but is yet too soon to determine what are the right sensors, technologies and procedures to acquire the in situ data to provide meaningful information on the conditions of an active volcano. There will be a need of multiple researchers, sensors evaluations, platforms, payloads, instrument demonstration, workshops and publications to determine the best method to choose as a new standard, so, I expect this will be a trend topic for many researchers to explore the capabilities of UAV based volcanic plume measurements with different payloads and instruments. So this makes the proposed paper pioneer and important for this field together with other scientists already doing similar measurements. I do recommend the article for publication with the small corrections that the other referee is suggesting, which in most cases I concur.

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