

Accepted Manuscript

Explosion characteristics of mildly flammable refrigerants ignited with high-energy ignition sources in closed systems

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PII: S0140-7007(18)30115-4
DOI: [10.1016/j.ijrefrig.2018.04.009](https://doi.org/10.1016/j.ijrefrig.2018.04.009)
Reference: IJIR 3949



To appear in: *International Journal of Refrigeration*

Received date: 1 December 2017
Revised date: 5 April 2018
Accepted date: 5 April 2018

Please cite this article as: E Askar , V Schröder , T Schmid , M Schwarze , Explosion characteristics of mildly flammable refrigerants ignited with high-energy ignition sources in closed systems, *International Journal of Refrigeration* (2018), doi: [10.1016/j.ijrefrig.2018.04.009](https://doi.org/10.1016/j.ijrefrig.2018.04.009)

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Highlights

- Ignitions with high ignition energy in a closed system were conducted.
- An ignition system generating electric arcs with defined ignition energy was used.
- With increasing ignition energy, the LEL of R32 decreases slightly.
- To trigger R1234yf and R1234ze explosions a high ignition energy was necessary.
- R1234yf and R1234ze explosions are still very mild compared to R32 and methane.

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