# Article information:

SnI4⋅(S8)2: A Novel Adduct‐Type Infrared Second‐Order Nonlinear Optical Crystal - Guo - 2018 - Angewandte Chemie - Wiley Online Library  
<https://onlinelibrary.wiley.com/doi/full/10.1002/ange.201803482>

# Article summary:

1. Halides and chalcogenides are promising candidates for middle and far-infrared (MFIR) second-order nonlinear optic (NLO) crystals due to their wide transparency in the MFIR region.

2. Combining halides X− (X=F, Cl, Br,I) and chalcogenides Q2− (Q=S, Se, Te) in one structure can balance NLO efficiencies and LIDT values.

3. Orange block crystals of SnI4⋅(S8)2 were synthesized by a reaction between SnI2,I2, and S at 950°C with a high yield.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article “SnI4⋅(S8)2: A Novel Adduct‐Type Infrared Second‐Order Nonlinear Optical Crystal” by Guo et al. is an informative piece that provides insight into the potential of combining halides X− (X=F, Cl, Br,I) and chalcogenides Q2− (Q=S, Se, Te) to create novel MFIR NLO crystals with balanced NLO efficiencies and LIDT values. The authors provide evidence for their claims through the synthesis of orange block crystals of SnI4⋅(S8)2 via a reaction between SnI2,I2, and S at 950°C with a high yield.

The article is generally reliable as it provides evidence for its claims through the synthesis of orange block crystals of SnI4⋅(S8)2 via a reaction between SnI2,I2, and S at 950°C with a high yield. Additionally, the authors provide background information on previous studies related to this topic which adds credibility to their work. However there are some points that could be improved upon such as providing more detailed information on the potential risks associated with this type of research or exploring counterarguments to their claims. Additionally there is no mention of any potential biases or promotional content which could be addressed in future versions of this article.

# Topics for further research:

* Nonlinear Optical Crystal Synthesis
* Halide-Chalcogenide Adducts
* High Yield Reactions
* Second-Order Nonlinear Optical Properties
* Laser-Induced Damage Thresholds
* Infrared Second-Order Nonlinear Optical Crystals

# Report location:

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