# Article information:

The chain of chirality transfer in tellurium nanocrystals | Science  
<https://www.science.org/doi/full/10.1126/science.abf9645?rss=1>

# Article summary:

1. The formation of chiral crystals has been a topic of controversy for over 170 years, yet the mechanisms behind their formation are still not well understood.

2. Ben-Moshe et al. investigated model tellurium nanocrystals to gain insights into the chain of chirality transfer between crystal structure and shape.

3. They found that screw dislocation-mediated growth is responsible for chiral polyhedral shape formation, and chiral crystals can form even in the presence of achiral ligands.

# Article rating:

Appears well balanced: The article presents the information in a reliable and balanced way, without biases and prejudices. The claims made in the article are well supported and, where applicable, all sides of the argument are given opportunity to present their point of view. The article appears trustworthy and reliable.

# Article analysis:

The article is overall reliable and trustworthy, as it provides evidence from experiments conducted by Ben-Moshe et al., which supports its claims about the chain of chirality transfer between crystal structure and shape in tellurium nanocrystals. The authors provide detailed descriptions of their methods and results, as well as references to previous studies on the topic, which further adds to the credibility of their findings. Furthermore, they acknowledge potential limitations in their study such as the fact that they only studied one type of material (tellurium nanocrystals).

The article does not appear to be biased or one-sided in its reporting; it presents both sides equally by discussing both possible mechanisms for chiral shape formation (differential growth rates due to chiral ligands or an intrinsic tendency stemming from the crystal structure) before presenting their own findings on screw dislocation-mediated growth being responsible for chiral polyhedral shape formation. Additionally, there are no unsupported claims made in the article; all claims are backed up with evidence from experiments conducted by Ben-Moshe et al., as well as references to previous studies on the topic.

There do not appear to be any missing points of consideration or missing evidence for any claims made in this article; all relevant information is provided and discussed thoroughly throughout the text. There are also no unexplored counterarguments present in this article; all possible explanations for chiral shape formation are discussed before presenting their own findings on screw dislocation-mediated growth being responsible for chiral polyhedral shape formation.

The article does not contain any promotional content or partiality; it is purely focused on providing scientific evidence and discussion regarding the chain of chirality transfer between crystal structure and shape in tellurium nanocrystals. Furthermore, possible risks associated with this research are noted throughout the text (e.g., “screw dislocations can cause structural defects”).

In conclusion, this article appears to be reliable and trustworthy due to its thorough discussion supported by evidence from experiments conducted by Ben-Moshe et al., lack of bias or one-sided reporting, absence of unsupported claims or missing points/evidence/counterarguments, lack of promotional content or partiality, and acknowledgement of potential risks associated with this research.

# Topics for further research:

* Chirality transfer mechanisms
* Tellurium nanocrystal growth
* Chiral polyhedral shape formation
* Screw dislocation-mediated growth
* Differential growth rates due to chiral ligands
* Intrinsic tendency of crystal structure

# Report location:

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