Energy Saving Paint

PRESENTING:

MATAN IVGI, GALI LOYEVSKY, ISAAC LURIE, DAVID ŠKERLJ



Summer

We use energy to cool down.

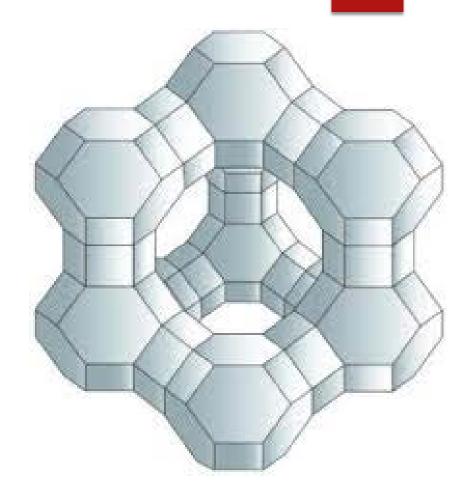


Winter

We use energy to warm up.

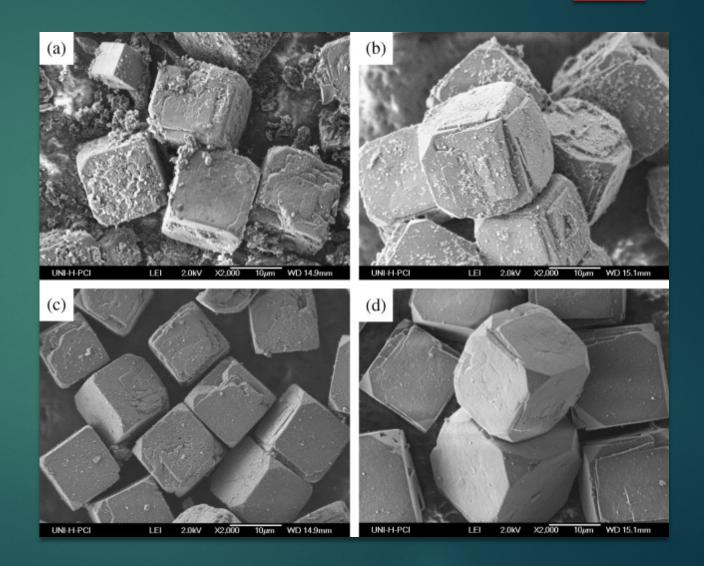
ZEOLITES

- Zeolites encounter water, absorb it and emit heat
- When heat is applied, the water is released
- A "loss-free" storage method



Can we use the zeolites' properties to solve this problem?

- Buildings of all sizes
- Cooling effect
- Gradual heat release



Energetics

- Average energy spent on heating / cooling in Israel: ~ 3,000 kWh per year
- ▶ 1 kWh of electricity costs about 0.13 €
- ▶ Our product will provide ~ 150 kWh

Finances

- ► Total cost: ~ 1,000 2,000 € per household
- Covers at least 5% of energy consumption for heating and cooling
- Production in China

Advantages

- Works passively
- ► In the summer, energy is stored until the humidity increases
- ► In the winter, energy is released gradually
- Environmentally friendly & long lasting

Thank you for listening!

- ► Contact info:
- M. lvgi: matangadivgi@gmail.com
- G. Loyevsky: galiloyevsky@gmail.com
- I. Lurie: hmjekurht@gmail.com
- D. Škerlj: skerlj.david@gmail.com

Citations & Bibliography



- W. Lei, H. Shao Chang, S. Zhongqiang, Z. Jian (2015), "Synthesis Method of LTA-Type Aluminum Phosphate Molecular Sieve"
- A. Krajnc, J Varlec, M. Mazaj, A. Ristić, N. Zabukovec Logar, G. Mali (2017), "Superior Performance of Microporous Aluminophosphate with LTA Topology in Solar-Energy Storage and Heat Reallocation"
- Pictures:
 - 2. summer https://www.gladhouse.org/single-post/2017/06/21/Summer-is-Here
 - 3. winter https://blog.thespinsterz.com/hooping-what-to-do-in-the-winter-months/
 - 4. zeolites -

http://www.explainthatstuff.com/zeolites.html

- 5. yes, we can http://thedebtweowe.com/july-24th-2026-confessions-of-a-former-%E2%80%9Cyes-we-can%E2%80%9D-chanter/yes-we-can
- 6. AIPO4-LTA -

https://www.sciencedirect.com/science/article/pii/S1387181109004120

9. world map -

https://freeclipartimage.com/article/top-78-world-map-clip-art

11. that's all folks -

https://surrimugge.deviantart.com/art/That-s-all-Folks-408860605