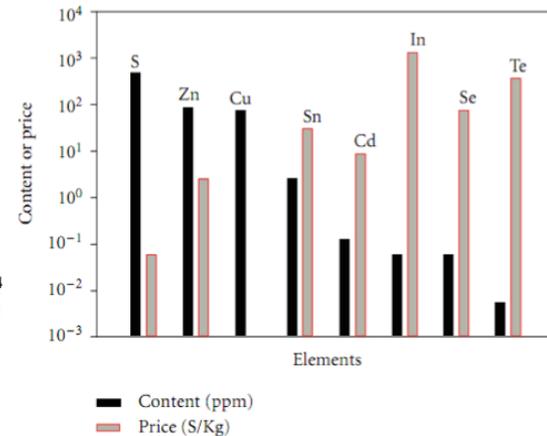
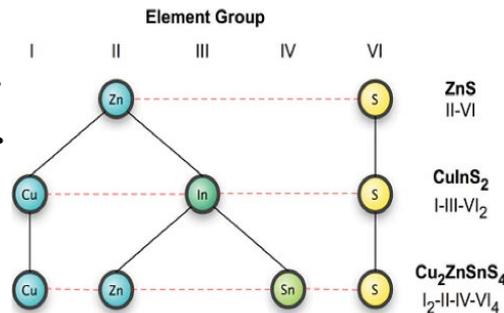


High-efficiency and low-cost CZTS solar cells

What is CZTS ($\text{Cu}_2\text{ZnSnS}_4$) solar cells?

- In will limit the wide deployment of CIGS solar cells due its high demand by LCD/LED market.
- CZTS is derived from CIGS, constituent of abundant and low-cost materials only.



Why CZTS ($\text{Cu}_2\text{ZnSnS}_4$) solar cells?

- High-efficiency potential-comparable to CIGS
- Low-cost promise-abundant raw materials & available commercialized equipment and production line from CIGS
- High-versatility-on rigid glass/steel/Si & flexible roof materials BIPV
- Non-toxic and highly stable-natural mineral source

CZTS ($\text{Cu}_2\text{ZnSnS}_4$) solar cells at UNSW

- CZTS solar cells at UNSW by three fabrications methods (i.e. sputtering (8.8% CZTS), nanoparticles (6.3% CZTS), and solgel (8.2% CZTSSe)) are or comparable to world record solar cells within 3 years (2013-15).

