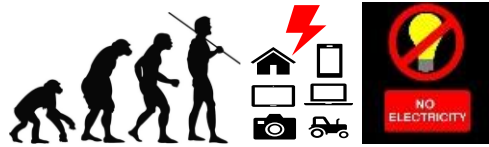


Introduction



our planet has become a dump house of plastic waste

Plastic is a major cause of land water and air pollution



Increasing energy consumption

- Lighting accounts for 40% total energy production
- 5% greenhouse gas emissions
- ✓ Need for energy efficient lighting sources

Proposed solution

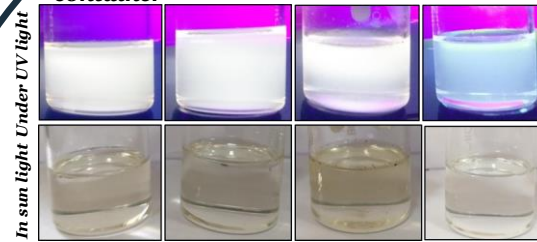
Recycling plastic waste to white LEDs

Results

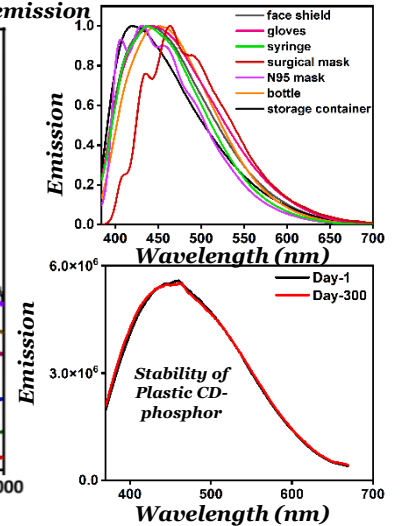
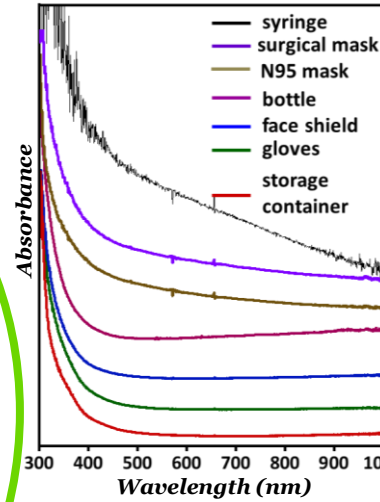
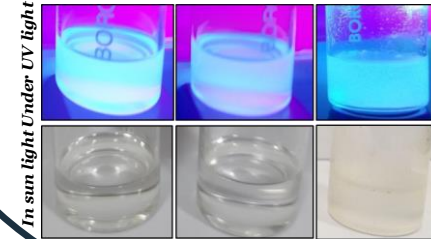
Broad absorption to achieve broad white emission

Carbon dots from plastic waste

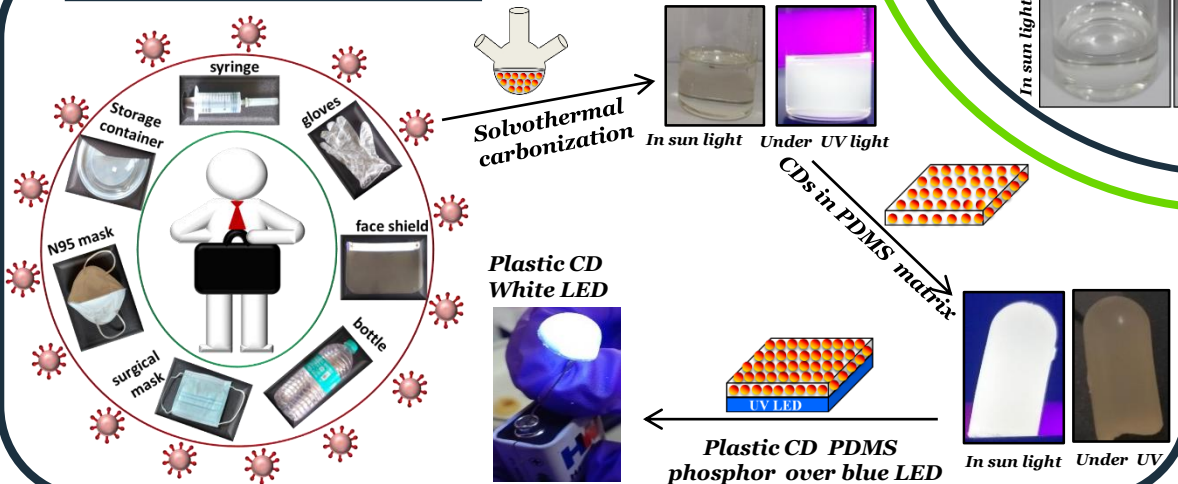
Storage container gloves Face shield bottle



Surgical mask N95 mask syringe



Materials And Methods



Conclusions

- ✓ light from waste
- Waste to wealth concept
- ✓ Zero carbon emissions
- Using our unique synthesis route
- ✓ CD WLED with CRI of ~70
- ✓ CIE (0.25, 0.32) is reported
- ✓ This work of generating light from waste will reduce environmental plastic pollution and provides an economical and sustainable white LEDs for next generation artificial lighting devices

