



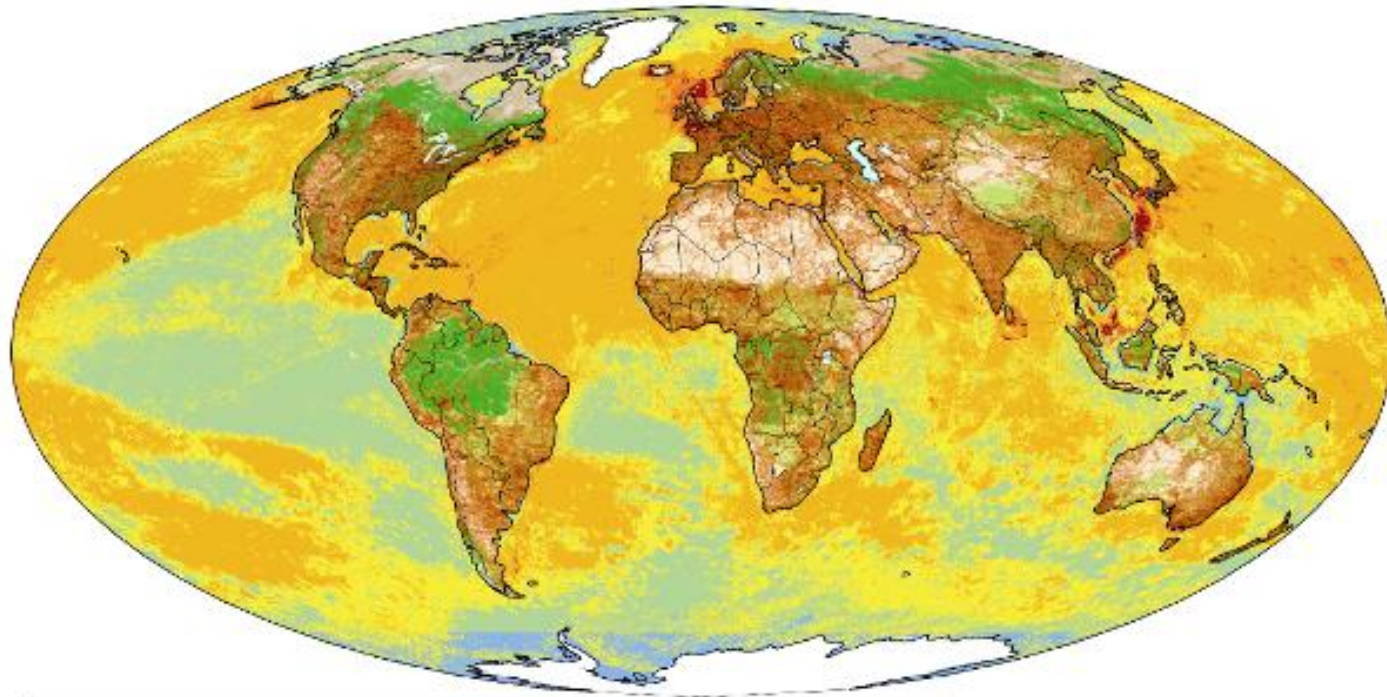
MONITORING OF WASTE AND FORMATION WATERS USING RAMAN SPECTROSCOPY AND ARTIFICIAL NEURAL NETWORK



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Human impact on the environment



Human Impact on the Environment

On Land:

- High impact
- Medium impact
- Forest
- Grassland
- Desert
- Ice

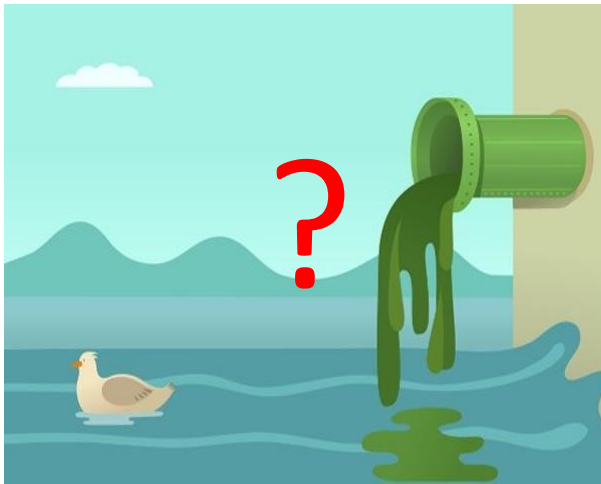
In the Ocean:

- Very high impact
- High impact
- Medium high impact
- Medium impact
- Low impact
- Very low impact

Problem



Problem



- Express
- Remote
- Providing both quantitative and qualitative results
- Non contact

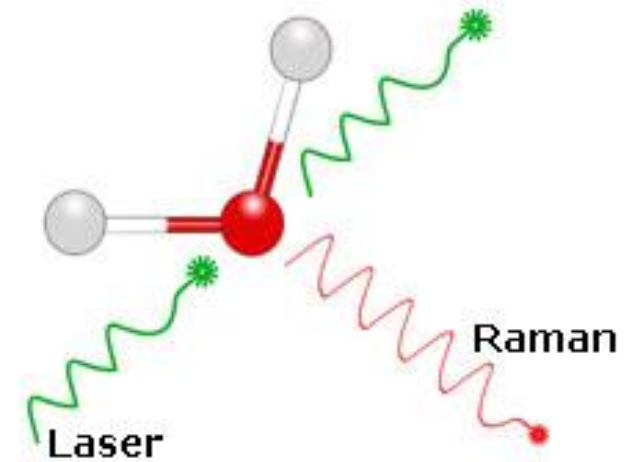
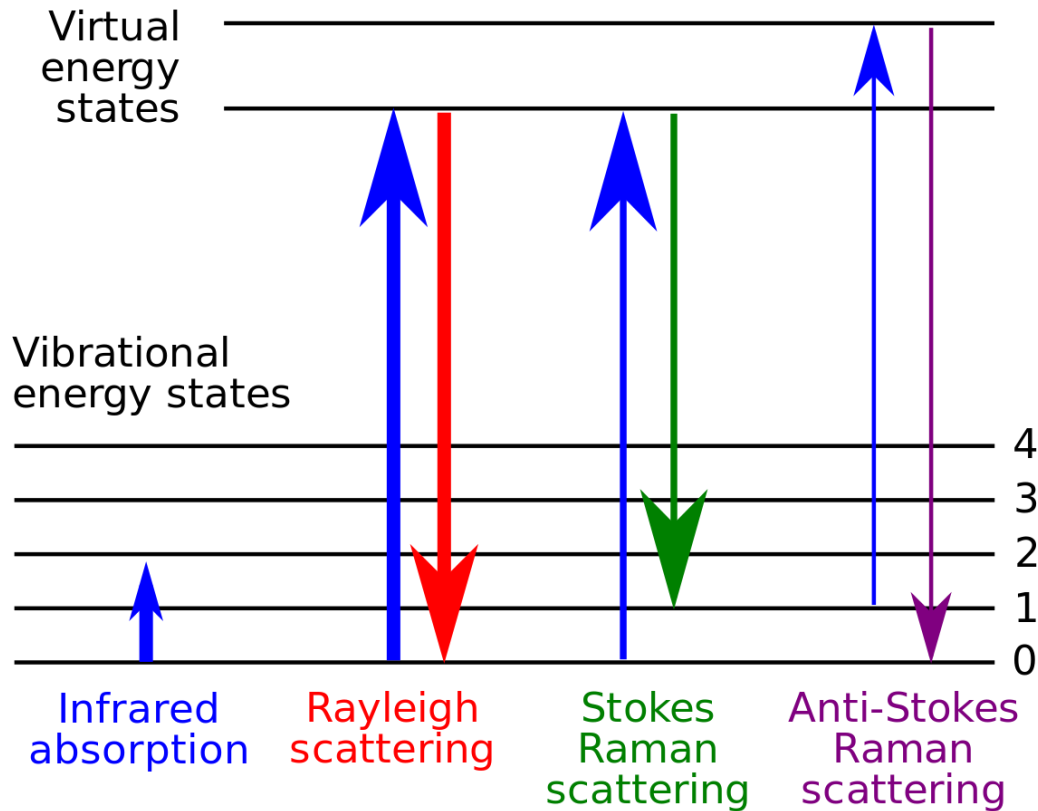
Solution



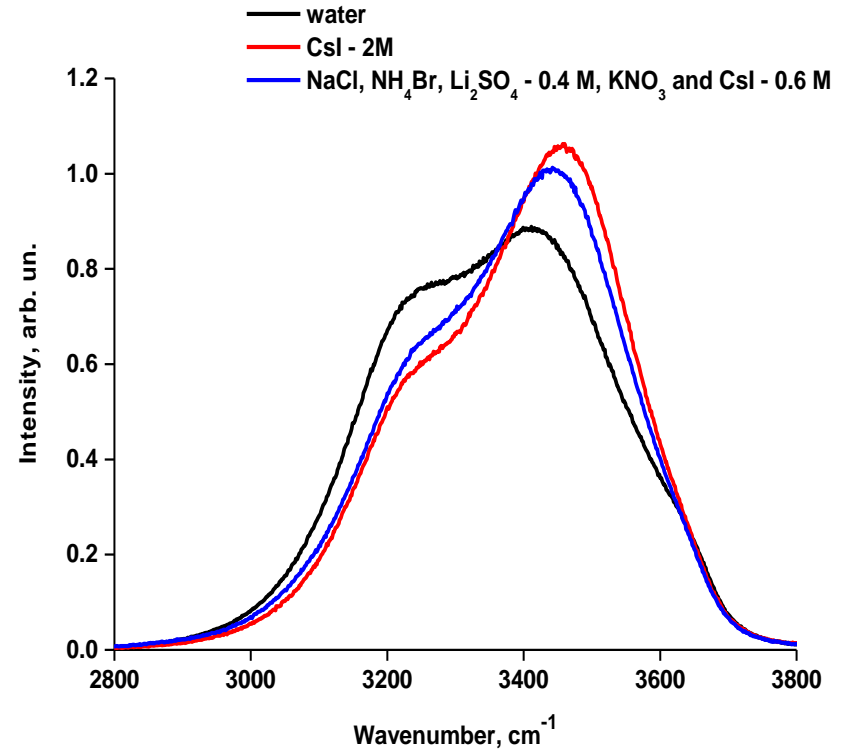
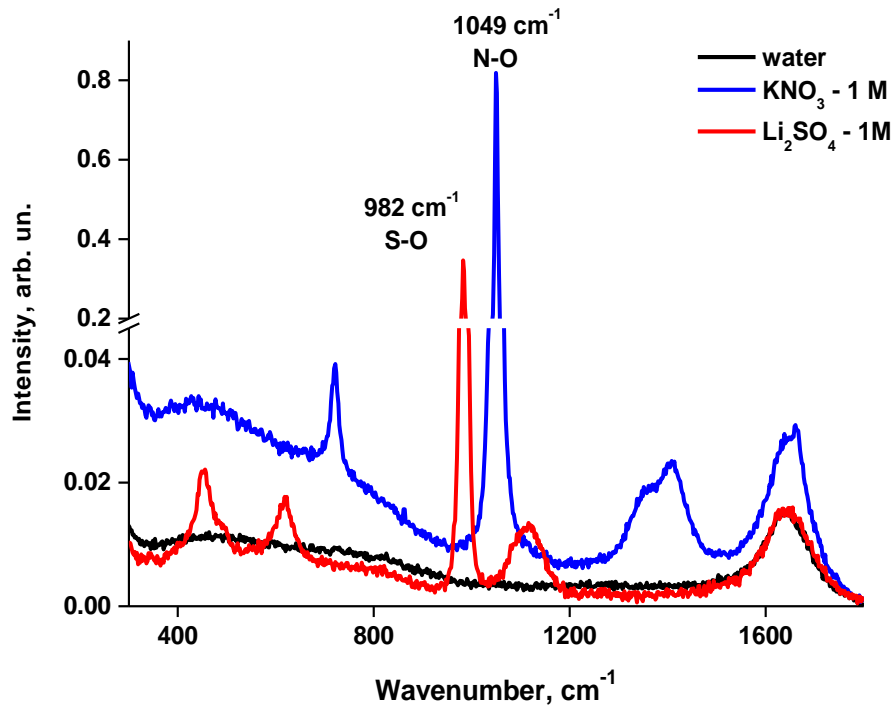
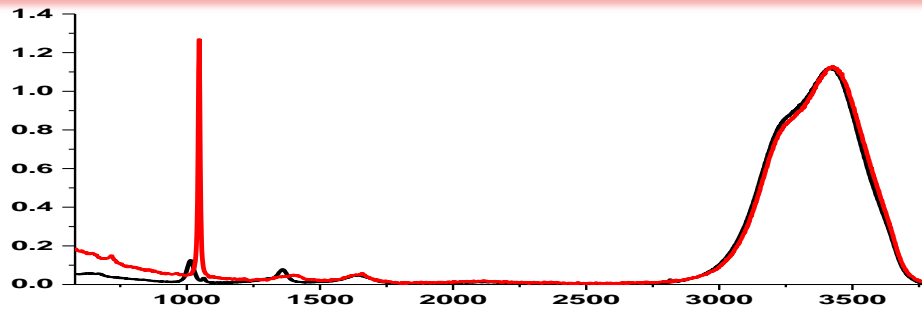
Raman Spectroscopy



Basics of Raman spectroscopy

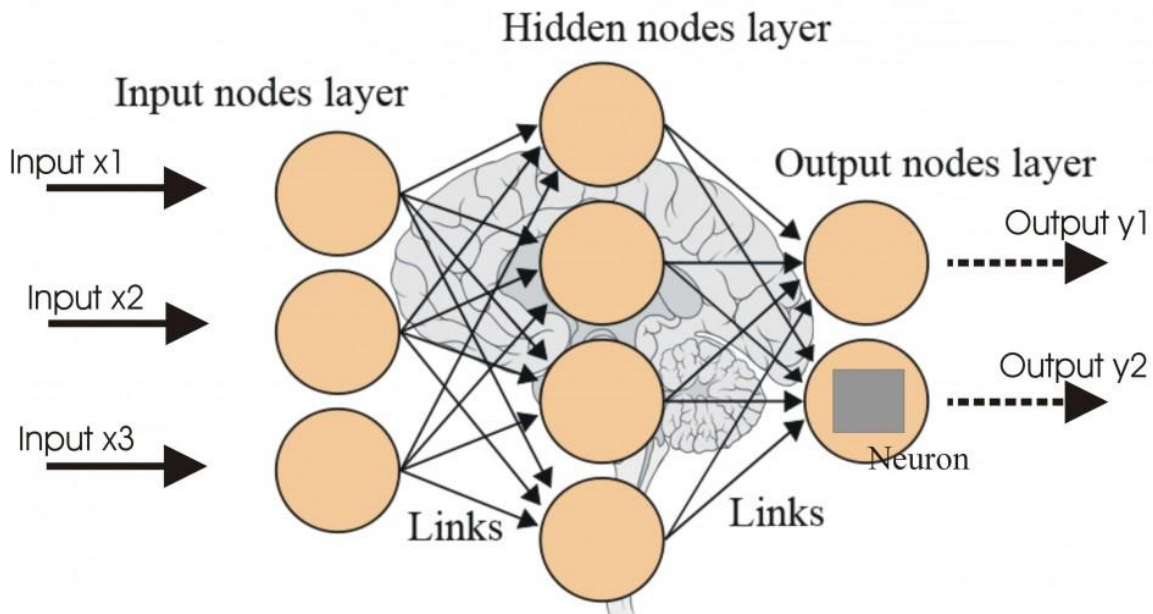


Raman spectra of aqueous salt solutions



Artificial neural networks

Raman
spectrum
of the salt
solution



Concentration
of the salt in
solution

Our team...



...waits for
YOU
on the poster
session

