

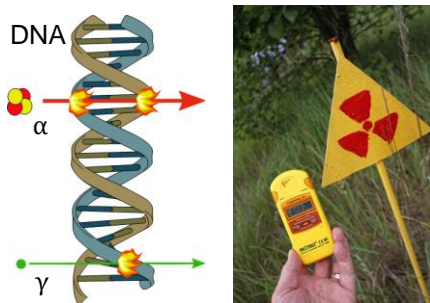
Optical detection of alpha emitting radionuclides in the environment

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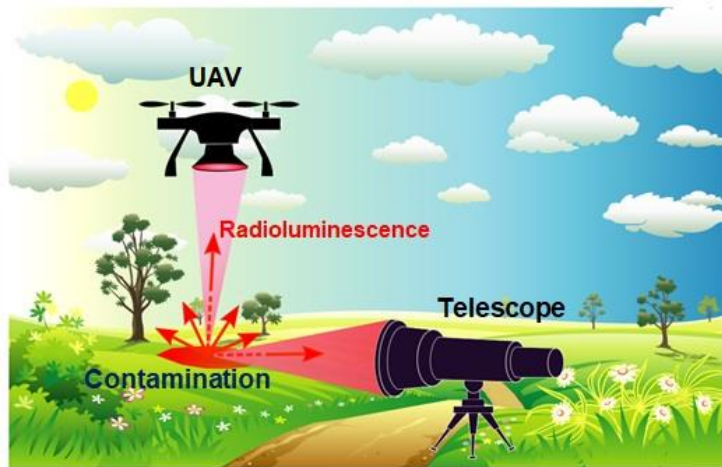
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Management of large-scale contamination of the environment with alpha emitters.

Alpha particles represent the biggest risk to soft biological tissues.



Conventional detection techniques are not suitable: involve scanning very close to the contaminated surface.



Use of air as a scintillator:
radioluminescence (UV light, 200–440 nm)

Range in air:

α -particles	→	0,04 m
UV light	→	500 m

RemoteALPHA:
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- Development of **new instruments** for the **optical detection of alpha emitters in the environment**.
- Establishment of **new calibration system** for the novel radioluminescence detector systems.
- Mapping alpha contamination in the environment using **UAVs**.

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