

- Measurement Instruments
 - A XRF, infrared or UV scintillator (2nd hand from Ebay; at maximum 20 years old). A scintillator can be negative voltage power supply or positive voltage power supply.
 - An adjustable Spellman 1500V/ 3000V 20mA safety-transformer matching the scintillator voltage and polarity (2nd hand, if available).
 - A 12V/ 24V power supply/ battery for the Spellman safety-transformer.
 - A 200 MHZ 2-channel digital oscilloscope with matching probes.
- Electric/ Electronic Parts
 - A groundless metal XRF radiation box widening from the top to the bottom containing:
 - A fast discharging (foil) capacitor 1500V/ 3000V; 2 HV relays; a damaged old-school light bulb with a dead-end glow-wire; a frequency distributing reflector out of 3 layers of fine leash wire net, a holed alu grill dish and a profiled 10mm metal plate; a plastic ground box filled up with 10 cm of small stone chippings; native wood profiles for apparatus scaffolding and box chassis.
 - Otherwise a broad spectrum infrared lamp/ a broad spectrum UV lamp.
 - Electrical wires (2-pole and 3-pole; the simple white quality is good enough).
 - Electrical plugs (2-pole and 3-pole).
 - 3m non-isolated wire 0.5 mm².
 - Electrical connectors.
 - Isolation tape (the simple white textile quality is sufficient).
 - Extension power sockets (some with surge protection/ noise filter).
- General Tools and Material
 - A drills set.
 - A drilling machine (maybe battery powered).
 - An electrical screw driver set.
 - A fine mechanics screw driver set.
 - A stainless steel screw and nut set.
 - Industrial glue (on cyan acrylate basis) plus corresponding granulate.
- Cleaning Agents
 - Scour milk and plastic scour pads.
 - Calcium carbonate powder/ tablets.
 - Active oxygen (bleaching) agent. (Against heavy colored mud; do not combine with ignitable cleaning substances.)
 - Distilled water. (Discount workaround for some purposes: Deep spring water.)
 - Label glue remover.
 - Alcohol 90%+.
 - Car screen washers cleaning supplement.
- Personal Safety Equipment
 - Working overalls (simple gray cotton textile is fine).
 - Safety glasses.
 - Safety earplugs.
 - Hand-gloves (one pair out of latex/ rubber, another pair out of cotton).
 - Safety shoes (A pair of summer sneakers with a thick sole is a comfortable to wear base protection against electrical charges, when combining with a safety carpet).
 - [Optionally FFP2 masks. (Preferably a comfortable version with clips to wear around the neck.)]
 - [Optionally a clean room hair cover. (Discount workaround: A thin cap or a motor-bike under-cap.)]
 - [Optionally sun cream for out-door lab in summer. (A cheap children sun cream should work it.)]
 - [Optionally maybe also a portable auxiliary bed, when working till late hours/ over night in the lab. (This usually requires an upfront permit in an external lab.)]