TRIBOELECTRIC SERIES

When various materials are rubbed together, which become positive and which become negative? Ah, you want the...

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Air *	← Most Positive
Human Hands	
Asbestos	
Rabbit Fur	
Glass	
Mica	
Human Hair	
Nylon	
Wool	
Fur	
Lead	
Silk	
Aluminum	
Paper	
Cotton	← ZERO
Steel	
Wood	
Amber	
Sealing Wax	
Hard Rubber	
Nickel, Copper	
Brass, Silver	
Gold, Platinum	
Sulfur	
Acetate, Rayon	
Polyester Styrene (Styrofoam)	
Orlon	
Saran	
Polyurethane	
Polyethylene	
Polypropylene	
Vinyl (PVC)	
Silicon	
Teflon	←Most Negative

The above list is from NATURE'S ELECTRICITY, p63 by Charles K Adams ©1987 Tab Books, #2769

I don't know if I believe that "air" really is in this position.
Electrification via airflow usually involves collisions with dust, snow, or condensed water suspended in the air. - William Beaty

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WARNING: the order of the above list is different in different books. Polarities are dependant upon atomically-thin surface layers, so don't be surprised if your particular examples of a material are not in the right place should you make your own list. It is best to choose two materials which are far apart on the list, then you can be fairly sure that their polarity will not be backwards from what you expect.

Note: the term "frictional electrification" is misleading. Separation of charges is not accomplished by friction. Surface charge imbalance comes from the same place that friction does: adhesion on the molecular level. Surfaces stick together because chemical bonds form. When surfaces in contact are separated, the bonds rupture, and any asymmetrical bonds (such as ionic bonds) will tend to leave imbalanced charges behind. Other effects are important too. This subject is not very well studied in science. Go search for info about surface charge, contact electrification, and Atomic Force Microscopes.

Since most materials are not flat enough or flexible enough to attain large-area contact, most materials don't become very strongly electrified when simply touched together then separated. For example, when fur is used on plastic it helps greatly if you drag the filaments of hair across the plastic surface. Among other things, it acts to increase the total contact area. Some surfaces, such as adhesive tape or plastic sheets, CAN attain intimate contact over a large area, and DO exhibit strong charging when they are simply touched to another surface and pulled away.
This phenomenon is called "contact charging" or "electrification by contact," and it's better to use these terms and avoid giving the idea that the mechanism for the electrification is CAUSED by friction. I also like to say that "surface charging is caused by peeling," since the scotchtape demo works so well, and because "peeling" always implies a preexisting intimate contact between surfaces.

Caveat: contact electrification is not well understood. Friction DOES playa part. For example, the ordering of the triboelectric series is different when surfaces are rubbed rather than simply touched. The order also changes when surfaces of differing roughness are rubbed together, and IDENTICAL substances can even generate a charge-imbalance if one surface is rough. This is probably a major reason why different references give different ordering of the series: the experiment must guarantee that no rubbing occurs, otherwise results will vary from trial to trial.