

Méthot, S., Moulin, V., Rancourt, D., Bourdages, M., Goulet, D., Plante, M.; Auger, F.A.; Germain, L. 2001

**Morphological changes of human skin cells exposed to a DC electric field in vitro using a new exposure system.**

*Canadian Journal of Chemical Engineering*, 79: 668-677

**Abstract:** The human skin contains a physiological battery that could be involved in the healing process by creating an endogenous electric field. Skin cells undergo morphological changes in response to an external DC electric field (EF). We found that fibroblasts reorient their cell bodies perpendicular to the EF direction for normal and above-normal physiological intensities. Actin and tubulin filaments (cytoskeleton proteins) follow the same pattern of reorientation, although to a lesser extent. The study of the response will lead to better understanding and improvement of the mechanisms involved in wound healing.