

Abstract Submitted
for the TSF11 Meeting of
The American Physical Society

Polarized Reflectance Measurement of Burned Skin Tissues

HECTOR MICHAEL DE PEDRO, CHUAN-I. CHANG, FARANAK ZARNANI, ROBERT GLOSSER, University of Texas at Dallas, Physics, D. MAAS, A. IDRIS, Department of Surgery, University of Texas Southwestern Medical Center, UNIVERSITY OF TEXAS AT DALLAS, PHYSICS COLLABORATION, UNIVERSITY OF TEXAS SOUTHWESTERN MEDICAL CENTER COLLABORATION — In the US, there are over 400,000 burn victims with 3,500 deaths in 2010. Recent evidence suggests that early removal of burn tissues can significantly increase the success of their recovery, since burns continue to spread and damage surrounding tissues after hours of injury. The rationale behind this procedure is that burns trigger the body's immune system to overreact, causing additional damage. Therefore, it is important to distinguish burn areas so that it can be removed. The problem with this is that it is difficult to recognize the margins of the burn area. In our project, we use polarized reflectance as a tool to identify the burned tissues from unburned ones.

Hector Michael de Pedro
University of Texas at Dallas

Date submitted: 12 Sep 2011

Electronic form version 1.4