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LAQUA pH METER

PRECISE HANDHELD pH METER WITH ISFET
ELECTRODE



HORIBA



LAQUA PH220

- Manufactured by Horiba Ltd Japan
- Delfin is world-wide distributor for skin applications
- Compatible with Delfin Modular Core (DMC) software
 - DMC for data collection
 - Wireless connection
- Waterproof, dustproof, shockproof
- Easy-to-view large display with background light, easy to carry



HORIBA



ISFET ELECTRODE

Ion sensitive field effect transistor (ISFET) pH electrode

- For skin surface pH measurements, no need of internal filling solution
- Sensor part is replaceable
- Robust compared to glass electrode
- Temperature sensor integrated
 - For automatic temperature compensation (ATC) and accurate pH reading



HORIBA

pH meter

Calibration and Measurement

- Calibration with two buffer solutions
 - Buffer solutions pH 4.01 and pH 7.00 (USA mode)
- Measurement on moistured skin surface (for instance physiological saline)
 - Auto stability or auto hold mode setting
 - Data saving to LAQUA's internal memory (and transfer to DMC wireless software)
- Recommendations for skin pH measurements by EEMCO



pH and skin pH measurement

- Skin pH is the result from the exogenous (sweat and sebum) and different endogenous factors
- Normal range for skin surface pH typically from 4.8-6.0
- Acidic skin pH is essential for the homeostasis and integrity of stratum corneum and helps to maintain microbial flora balance in skin
- Example: Change of skin pH increases penetration of chemicals and drugs through the skin



LAQUA pH Meter from Delfin



References

- Fluhr J, Bankova L, Dikstein S. Skin surface pH: Mechanism, measurement, importance. In: Serup J, Jemec GBE and Grove GL, eds. *Handbook of non-invasive methods and the skin*, 2nd edn. Boca Raton, FL: CRC Press; 2006: 411–420.
- HORIBA's Application Note: Measurement of Skin Surface pH
- Stefaniak, A. et al. International guidelines for the *in vivo* assessment of skin properties in non-clinical settings: part 1. pH. *Skin Research and Technology* 2012; 0: 1–10.
- Parra JL, Paye M. EEMCO guidance for the *in vivo* assessment of skin surface pH. *Skin Pharmacol Appl Skin Physiol* 2003; 16: 188–202.

A close-up photograph of a single green leaf with a serrated edge, floating on the surface of blue water. The water has gentle ripples and reflections. The leaf is positioned in the lower right quadrant of the frame.

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