



UvA-DARE (Digital Academic Repository)

Quantitative and localized spectroscopy for non-invasive bilirubinometry in neonates

Bosschaart, N.

Publication date
2012

[Link to publication](#)

Citation for published version (APA):

Bosschaart, N. (2012). *Quantitative and localized spectroscopy for non-invasive bilirubinometry in neonates*. [Thesis, fully internal, Universiteit van Amsterdam].

General rights

It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations

If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: <https://uba.uva.nl/en/contact>, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.

List of abbreviations

LCS related abbreviations

LCS low-coherence spectroscopy
 tdLCS time domain LCS
 sdLCS spectroscopic detection LCS

OCT optical coherence tomography
 sOCT spectroscopic OCT

FWHM full width at half maximum
 PSF point spread function
 NA numerical aperture
 OD optical density
 GD group dispersion

FT Fourier transform
 SNR signal to noise ratio
 QE quantum efficiency
 AC alternating current
 DC direct current

NIST National Institute of Standards and
 Technology
 PS polystyrene
 IL Intralipid
 TiO₂ titanium dioxide

error estimation

c.i. confidence interval
 SD standard deviation
 PL prediction limit
 var variance

physiology

Hb deoxygenized hemoglobin
 HbO₂ oxygenized hemoglobin
 [tHb] total hemoglobin concentration
 SO₂ oxygen saturation

TcB cutaneous bilirubin concentration
 TSB total serum bilirubin concentration
 TcHb cutaneous Hb concentration
 TcHbO₂ cutaneous HbO₂ concentration
 BVF blood volume fraction

other

CCD charge coupled device