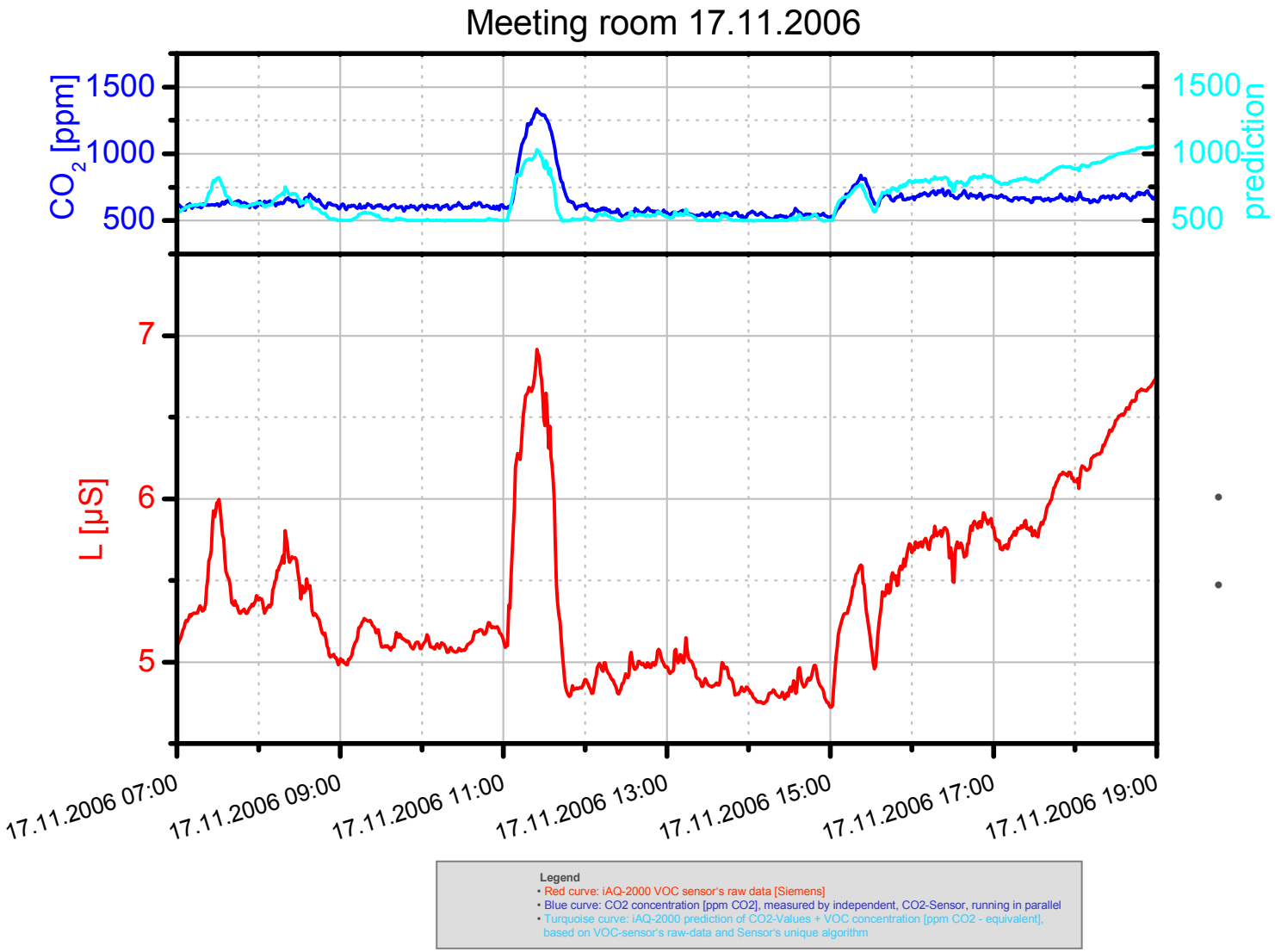
7 *sens*ational examples of the Sensor BIO Indoor Air Quality Module

Introduction

- The BIO Module for Demand Controlled Ventilation comprises of
  - one VOC sensor to detect and quantify odors
  - one proprietary algorithm to
    - scale/normalize odor events to CO_2 equivalents
    - predict the current CO_2-concentration
- This combination is currently unrivaled in the market and survives without costly CO_2-sensing technology
- The following slides of real-life application test results, taken from various applications, locations, and countries clearly depict the performance of the BIO
- As a guideline for the interpretation of the data shown:
  - Red curve: BIO VOC sensor‘s raw data [Siemens]
  - Blue curve: CO_2 concentration [ppm CO_2], measured by independent, CO_2-Sensor, running in parallel
  - Turquoise curve: BIO prediction of CO_2-Values + VOC concentration [ppm CO_2 - equivalent], based on VOC-sensor‘s raw-data and Sensor‘s unique algorithm

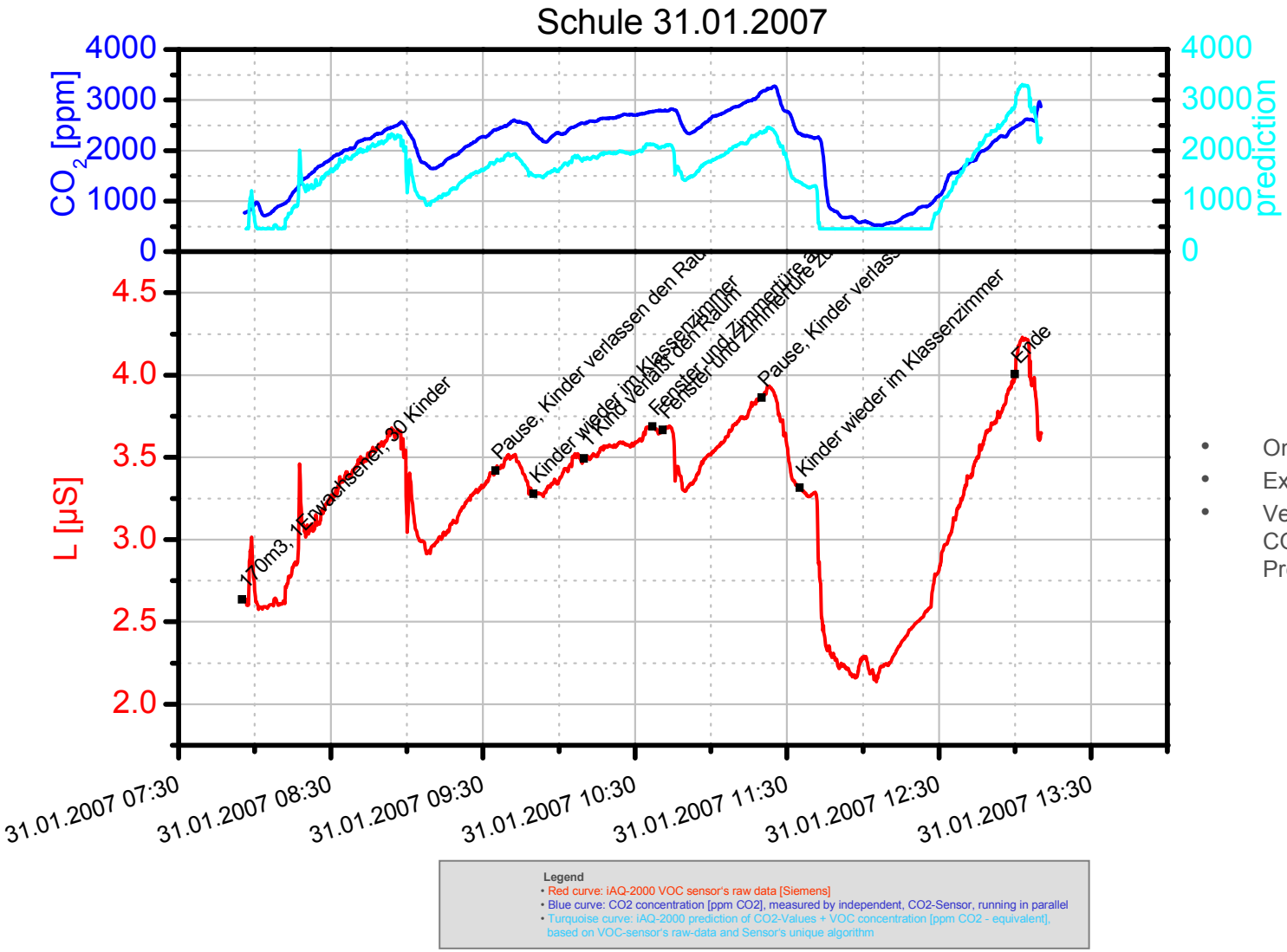
Meeting Room
Detail 1: Morning Session



- Perfect correlation between CO2 and VOCs
- Perfect correlation with prediction algorithm

Classroom

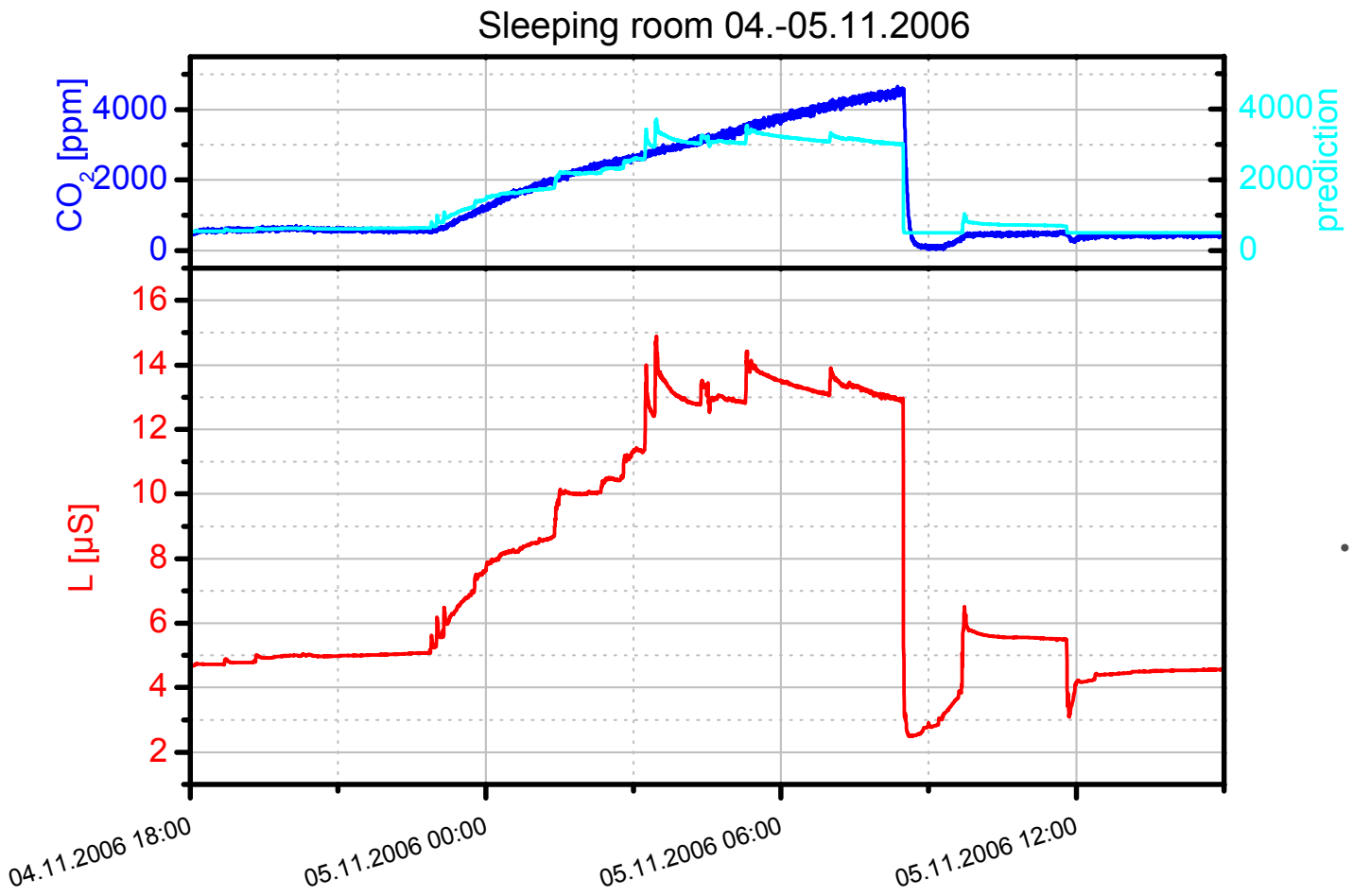
170m3, 30 Students, 1 Teacher



- One morning, many events
- Extreme CO_2-Values
- Very good correlation between CO_2- and VOC-Events/ Prediction

Bedroom

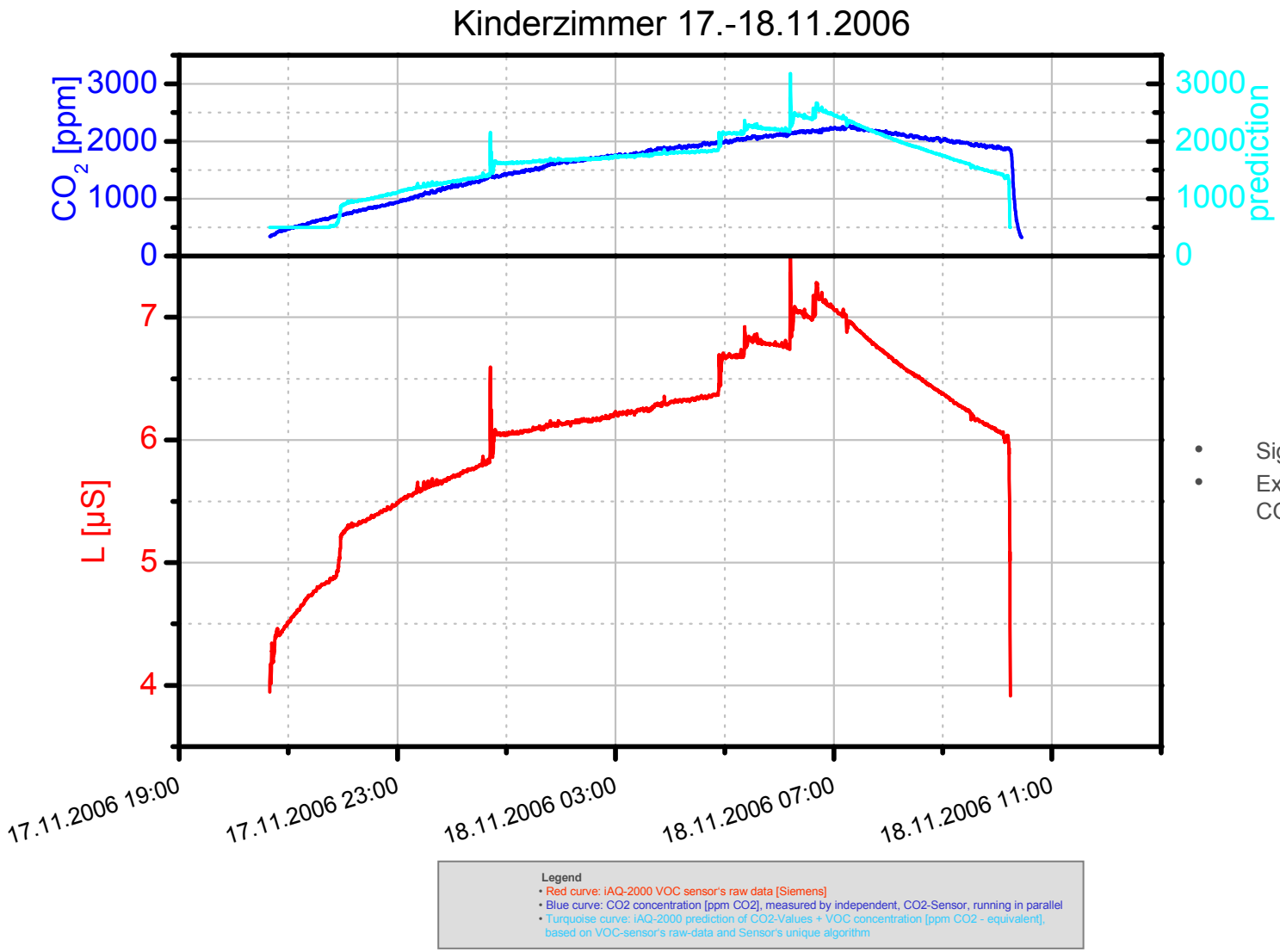
One night, 2 adults, 18m² bedroom with 2.3m ceiling height, window closed



- Perfect correlation between CO2 and VOCs

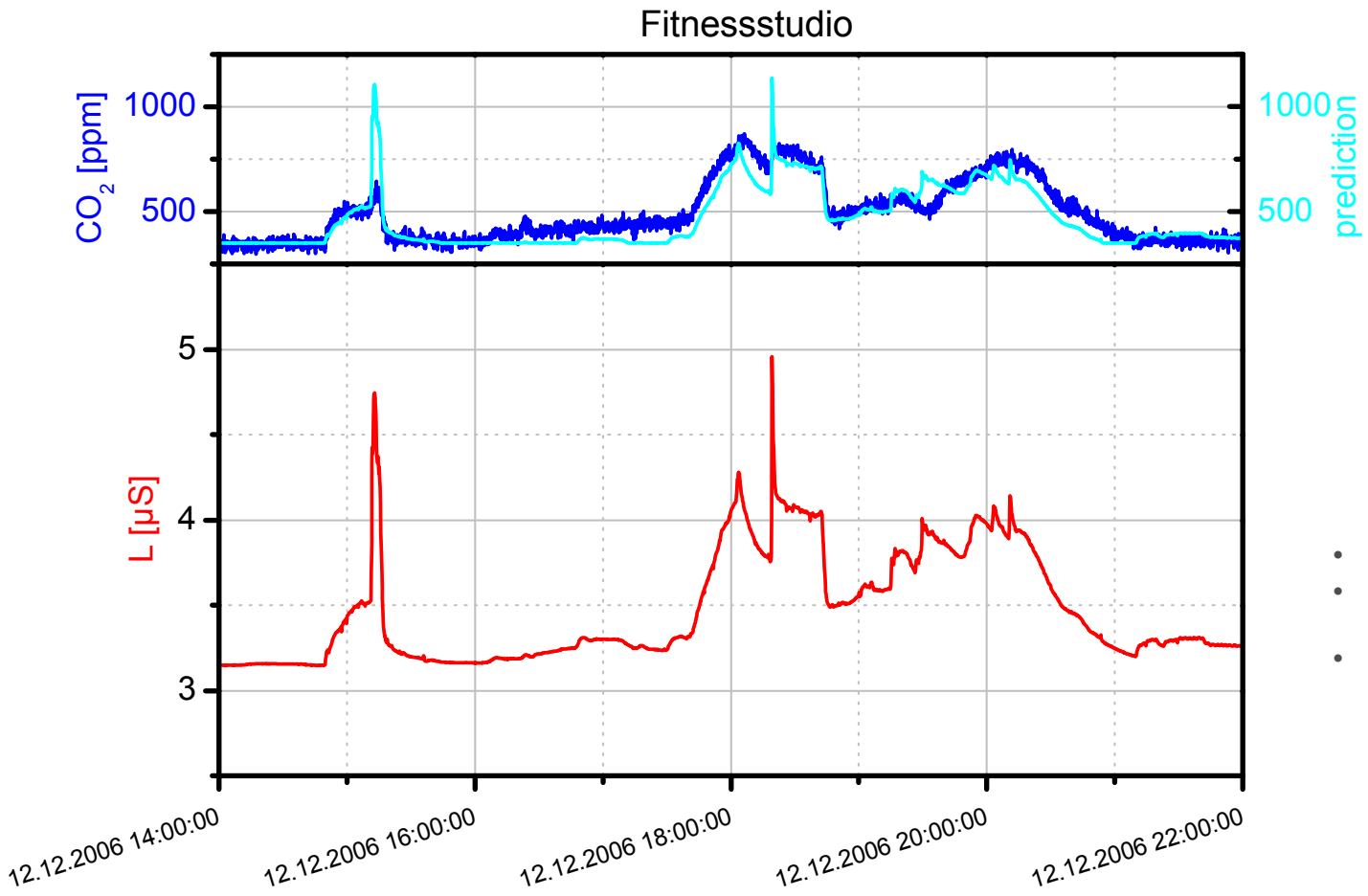
Legend
- Red curve: iAQ-2000 VOC sensor's raw data [Siemens]
- Blue curve: CO2 concentration [ppm CO2], measured by independent, CO2-Sensor, running in parallel
- Turquoise curve: iAQ-2000 prediction of CO2-Values + VOC concentration [ppm CO2 - equivalent], based on VOC-sensor's raw-data and Sensor's unique algorithm

Children‘s Room
One night



- Significant CO_2-Values
- Excellent correlation between CO_2- and Prediciton-Values

Gym



- 1/2-day surveillance
- Mixtures of VOC- and CO2 events
- Excellent consistency between true CO2 levels and VOC-based prediction

Legend
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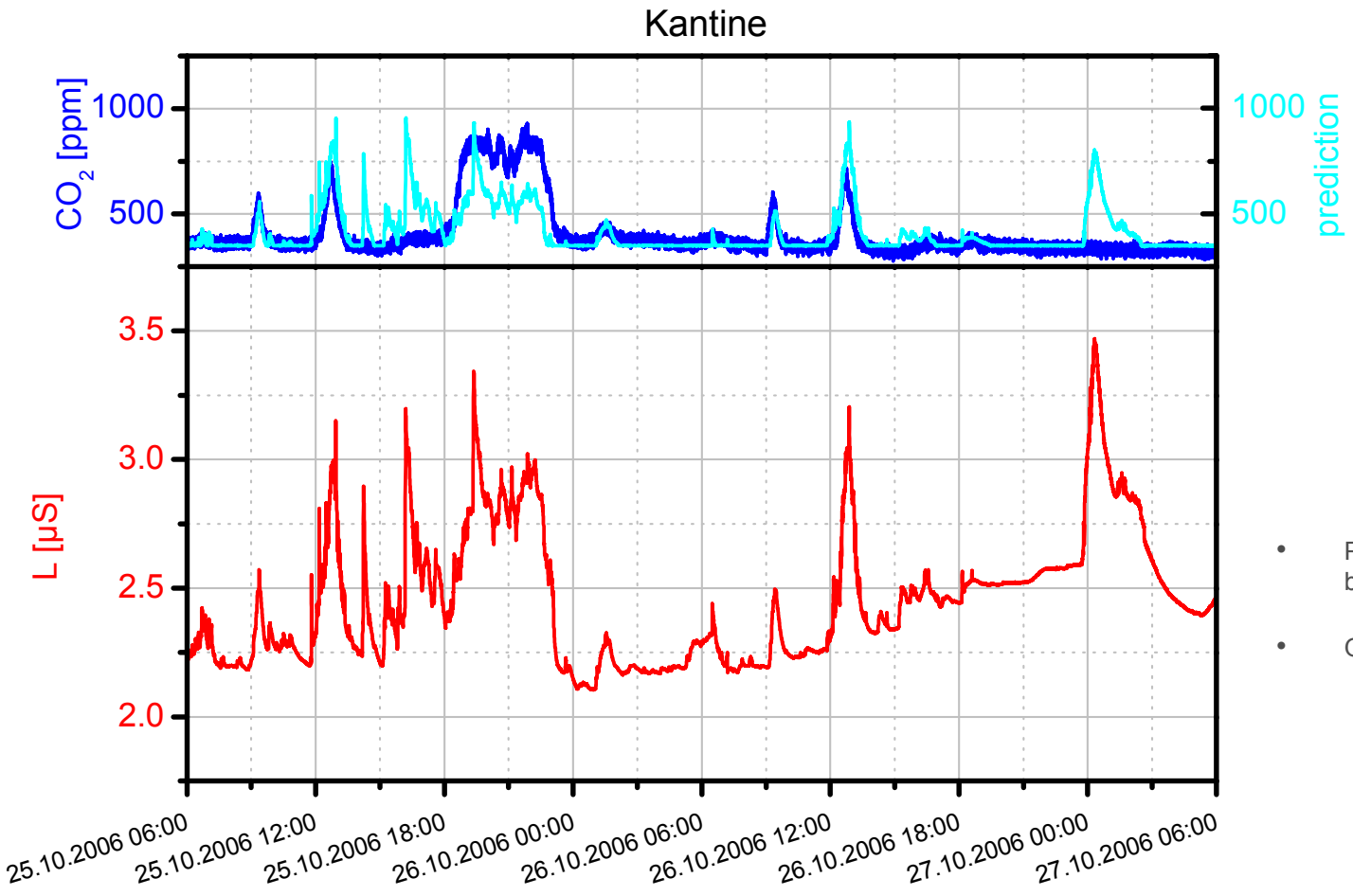
Cantina

Where plain CO_2 –sensors fail



- Perfect correlation between CO2 and VOCs
- Odors dominate results

Legend
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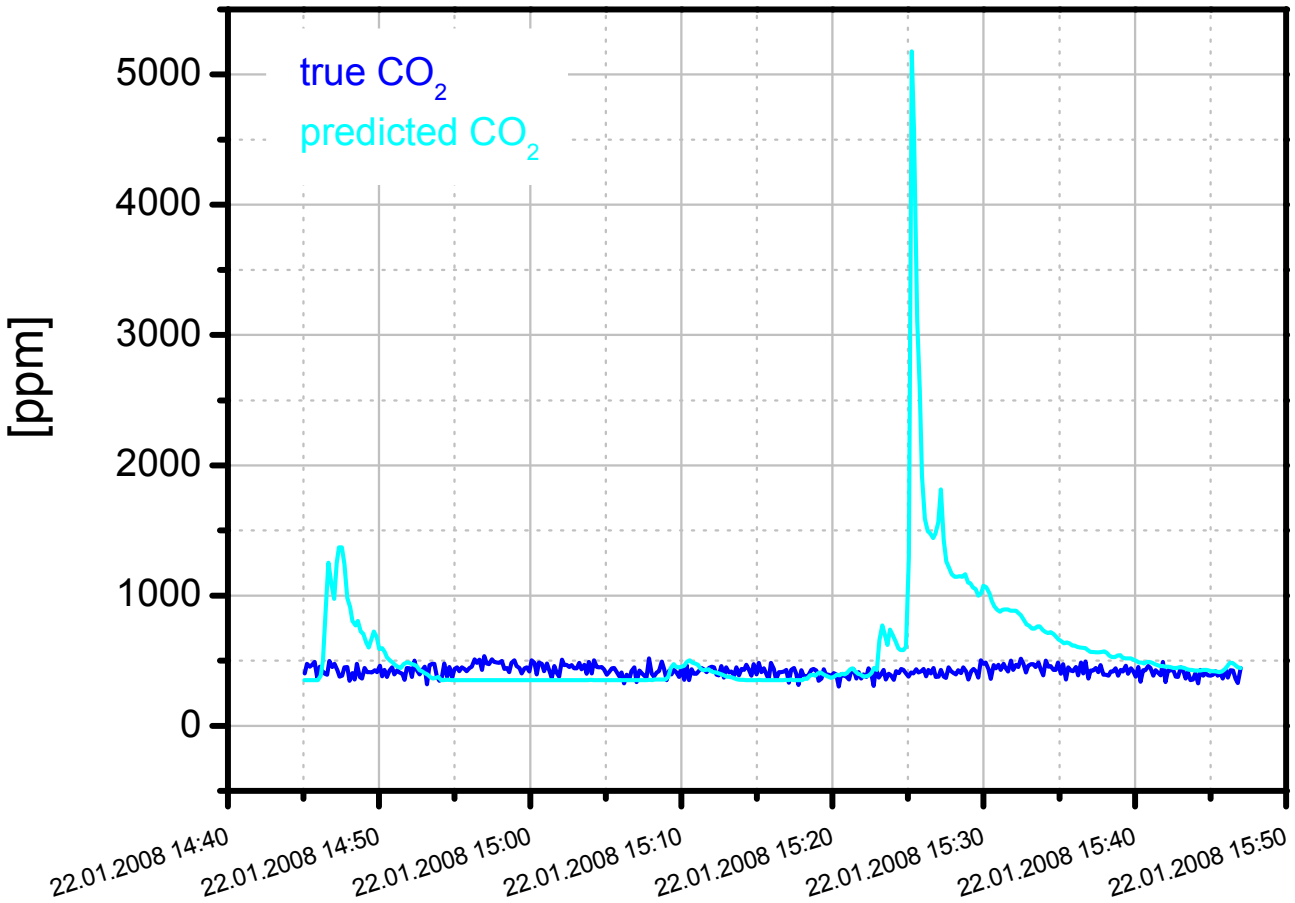
Restroom

Where plain CO_2 –sensors fail again



- CO2 remains calm whereas VOC-based prediction identifies larger event

Legend

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