ИМКЭС
СО РАН

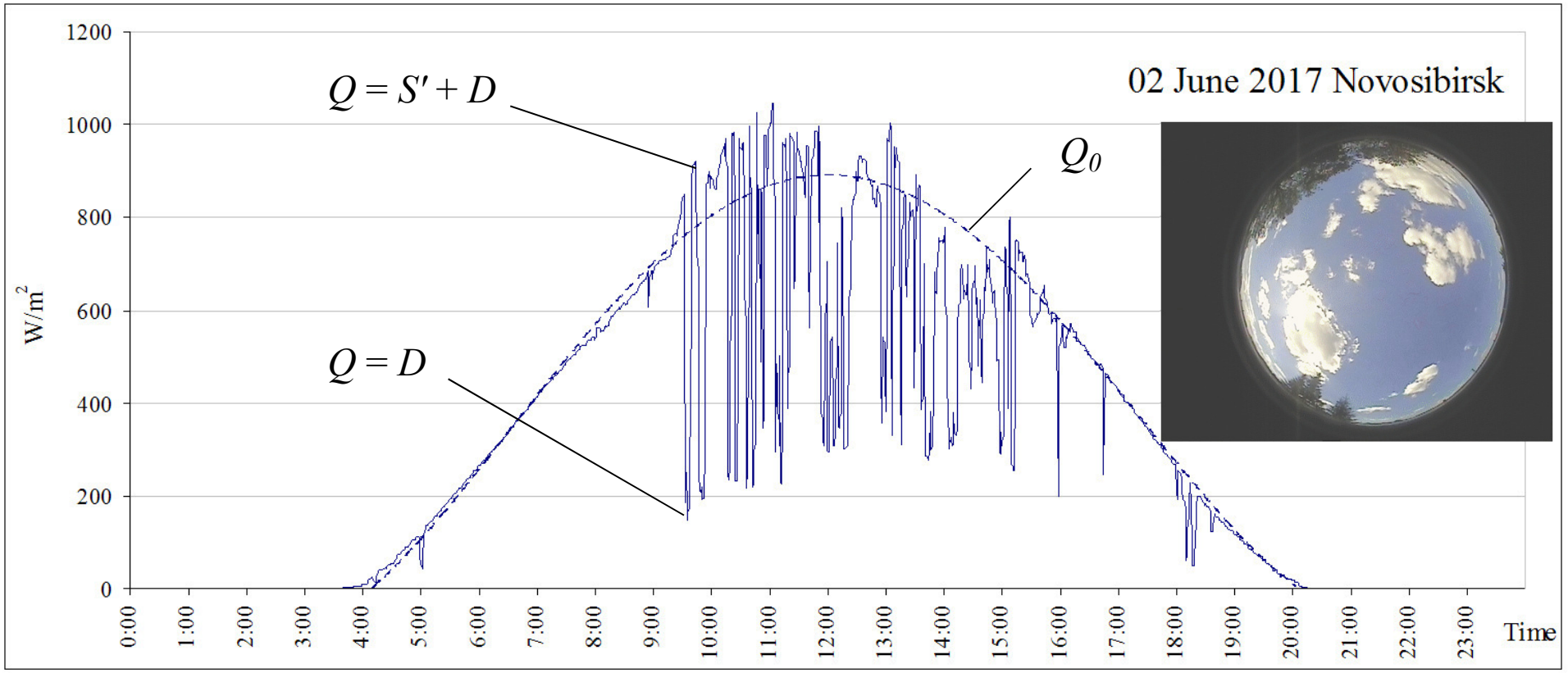
INSTITUTE OF MONITORING
OF CLIMATIC AND ECOLOGICAL SYSTEMS

SIBERIAN BRANCH OF THE RUSSIAN ACADEMY OF SCIENCES

Simplified method for *Cu* monitoring using global irradiance

S.V. Zuev, N.P. Krasnenko Speaker M.V. Kiselyov
Institute of monitoring of climatic and ecological systems SB RAS, Tomsk, Russia, e-mail: zuev@imces.ru

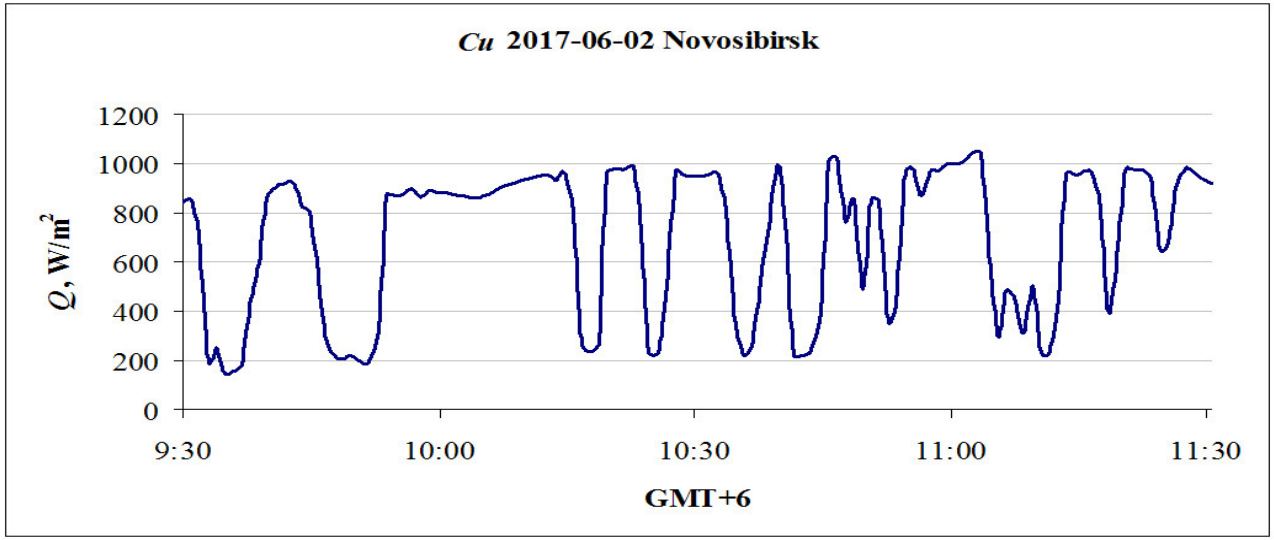
Variational actinometric features of *Cu*



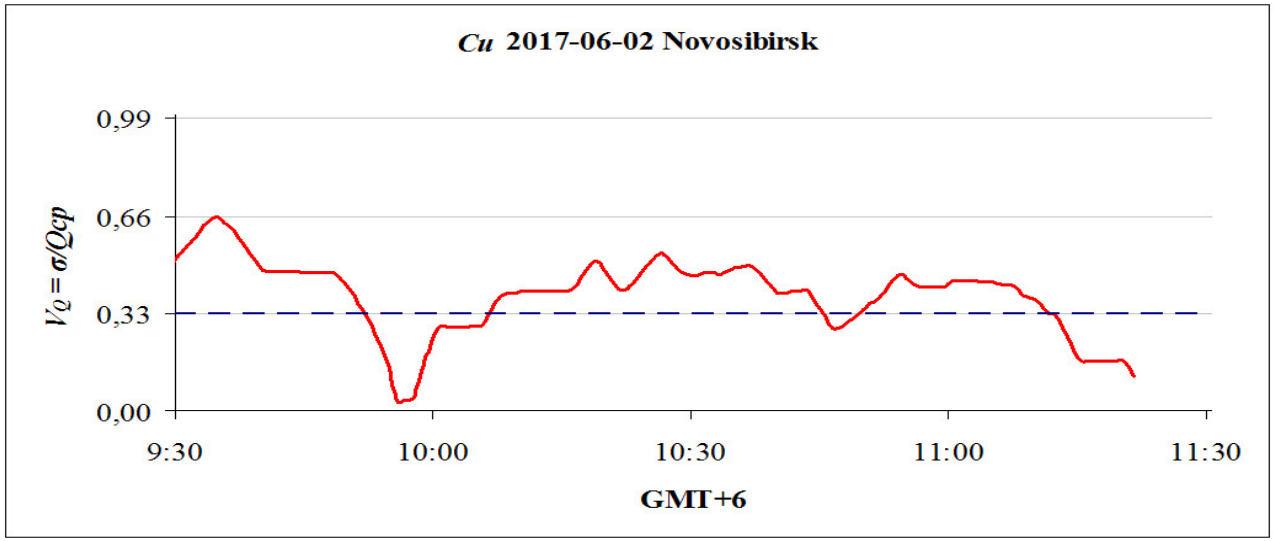
$$V_Q = \sigma / \overline{Q}$$

$V_Q \approx 0$ $\quad$ $V_Q > 0.33$

Variational actinometric features of *Cu*

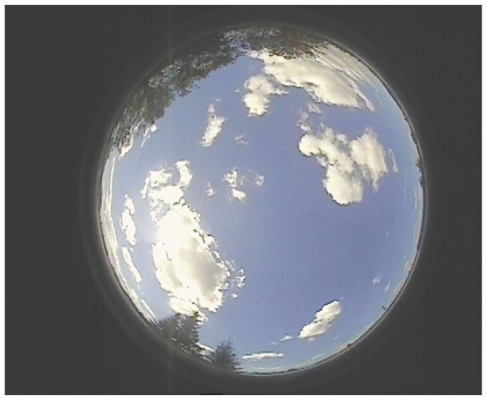


G*lobal*
H*orizontal*
I*rradiance*
$Q = S' + D$
from pyranometer.



C*oefficient of*
V*ariation*
$V_Q = \sigma/\bar{Q}$
for 21-min. moving window.

Experimental *Cu* monitoring results



May 2017, Tomsk

Used global horizontal irradiance from Pyranometer

CM11 (Kipp & Zonen)

Number of analysis points ($h > 30^{o}$) *14806*

Number of points defined as *Cu* *1239*

Precision *0.83*

Recall *0.80*

INSTITUTE OF MONITORING
OF CLIMATIC AND ECOLOGICAL SYSTEMS
SIBERIAN BRANCH OF THE RUSSIAN ACADEMY OF SCIENCES

Simplified method for *Cu* monitoring using global irradiance

S.V. Zuev, N.P. Krasnenko Speaker M.V. Kiselyov
Institute of monitoring of climatic and ecological systems SB RAS, Tomsk, Russia, e-mail: zuev@imces.ru