ACKNOWLEDGMENTS

The research was supported by CONICYT (National Commission of Scientific and Technological Research), FONDECYT 11130-139 awarded to Luz A. Cárdenas and co-researchers Juan Pablo Vasquez and Luis Morales.

REFERENCES

Amado, M., and F. Poggi. 2014. Solar Urban Planning: a parametric approach. Energy Procedia, 48:1539-1548

Andreou, E. 2014. The effect of urban layout, street geometry and orientation on shading conditions in urban canyons in the Mediterranean. Renewable Energy, 63: 587-596.

Beckers, B. and D. Rodríguez. 2009. Helping architects to design their personal daylight. WSEAS Transactions on Environment and Development, 5(7): 467-477.

Beckers, B. 2012. Solar Energy at Urban Scale.John Wiley and Sons.

Bottillo, S., De Lieto Vollaro, A., Galli, G. and A. Vallati. 2014. CFD modelling of the impact of solar radiation in a tridimensional urban canyon at different wind conditions. Solar Energy, 102: 212-222.

Capeluto, I.G. and E. Shaviv. 2001. On the use of 'solar volume' for determining the urban fabric. Solar Energy, 70(3): 275-280.

Littlefair, P. 2011. Site layout planning for daylight and sunlight: a guide to good practice. BRE Electronics Publication. 978-1-84806-178-1

Mills, G. M. 1993. Simulation of the energy budget of an urban canyon—I. Model structure and sensitivity test. Atmospheric Environment. Part B. Urban Atmosphere, 27(2): 157-170

Lau, K.L., Ng, E. and Z.J. He. 2011. Residents' preference of solar access in high-density sub-tropical cities. Solar Energy, 85(9): 1878-1890

Košir, M, Capeluto, I.G., Krainer, A. and Ž. Kristl. 2014. Solar potential in existing urban layouts. Critical overview of the existing building stock in Slovenian context. Energy Policy, 69: 443-456

Oke, T. R. 1988. Street design and urban canopy layer climate. Energy and Buildings. 11(1–3): 103-113

Pearlmutter, D., Bitan, A., and P. Berliner. 1999. Microclimatic analysis of "compact" urban canyons in an arid zone. Atmospheric Environment, 33 (24–25): 4143-4150

Stirling Council. 2002. Layout and design of New Housing Development and Advice Note. Scotland, Great Britain: the Stirling Council

UNHS. 2009. Planning Sustainable Cities: Global Report on Human Settlements 2009. London. Earthscan.

Van Esch, M.M.E., Looman, R.H.J. and G.J. de Bruin-Hordijk. 2012. The effects of urban and building design parameters on solar access to the urban canyon and the potential for direct passive solar heating. Energy and Buildings, 47: 189-200

Venegas, L.E. y Maceo, N. A. 2012. Evaluación del desempeño de modelos de dispersión de contaminantes aplicados a cañones urbanos. Meteorológica, 37, (1): 3-13