ABSTRACT
Insects are exotic alternative protein source with huge potential for food industry by high nutritional value and limited environmental footprint. The aim of this study is to explore the colour characteristics, technological and sensory properties of sponge cakes enriched with cricket 5% and 10% cricket flour (CF₅₀C and CF₁₀₀C), used as substitute of the wheat flour. Moisture, pH, a₆₆, springiness and specific volume decrease with increasing CF in a dose depend manner. Replacement of 10% cricket flour showed negative effect on the colour characteristics, shrinkage, specific volume, springiness and texture of sponge cakes. In CF₁₀₀C a* shows highest values, while L* and b* present the lowest indications in comparison to other samples measured. The sensory panel found nonspecific taste and off-flavour in 10% CF based sponge cakes. Replacement of wheat flour with up to 5 % CF has slight effect on the sensory properties (appearance, cell size uniformity, crumb tenderness, odour and taste) of sponge cakes and can successfully be used as innovative ingredient to enhance the protein content in bakery products.