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**Current Ongoing Monitoring and Prospects of Prediction of the
Confectionary Products State with the New Capacitive Transducers.**

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ABSTRACT

**Current Ongoing Monitoring and Prospects of Prediction of the
Confectionary Products State with the New Capacitive Transducers.**

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Confectionary, monitoring, state and composition, measuring.

An appearance of highly sensitive and stable, high-precision three-contacts capacitive measuring devices for the first time allows us to pose the question of effective high-precision current monitoring of the composition and impurities in transported raw materials, which can be flour, sugar, water, etc. It becomes possible to control the structural changes of the finished product over time, for example, its drying, hardening, aging. It must be assumed that the possibility of designing of such transducers to predict the condition and changes of the quality of the material during its keeping over time becomes real.

It can be argued on the basis that such devices, based on the Lampard-Thomson theorem, are currently the most accurate and stable among all electrical devices, the most precision primary electrical standards of advanced countries are built on their basis.

In these converters electrical capacity for the first time does not practically depend on the presence of the moderate films of oxides and dirt, for example - rather heterogeneous residue on the electrodes previously controlled substances. Using the M.M.Horbov's effect in such systems with the cross-capacitances allows to control separately the amount and composition of matter for the first time - on the flat conveyor during transportation

New design of cylindrical flow capacitive transducers allows to realize not only a precision control of the composition of substances, transported in the pipeline, but also to control grain size, or composition of the particles of impurities in it. The corresponding sensor does not distort the controlled flow of matter, as contains no electrodes inside, and mechanically, while controlling the composition of substances, is a part of the pipe in the form of three electrically isolated metal cylindrical electrodes of the same diameter as pipeline. Middle electrode, as the pipe in general, is electrically grounded and has a length equal to 0.3 of pipeline diameter. The other two measuring electrodes have the length equal to the diameter of the pipe.

KEY WORDS Confectionary, monitoring, state and composition, measuring.

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