1058-03-22 **Dmitry Bredikhin*** (bredikhin@mail.ru), Lermontova 7-22, Saratov, AS 410002, Russia. *On algebras of relations with operations of cylindrification.* Preliminary report.

Let $Q\{\Omega, \subset\}$ be the quasivariety generated by partial ordered algebras of binary relations whose operations are members of Ω. We shall consider the operations of relation product $\circ$ and two unary operations of cylindrification ∇_1, ∇_2 [1].

Theorem. An partial ordered algebra $(A, \cdot, ^*, ^\bullet, \leq)$ of the type $(2,1,1)$ belongs to the quasivariety $Q\{\circ, \nabla_1, \nabla_2, \subset\}$ if and only if it satisfies the identities:

$(xy)z = x(yz)$, $(x^\star)^\bullet = (x^\bullet)^\star$, $x^\star y = xy^\bullet$, $(x^\star)^\star = x^\star$, $(x^\star)^2 = x^\star$, $(xy)^\star = xy^\star$, $xy^\star x^\star = xy^\star$, $x^\star y^\star z^\star = x^\star z^\star y^\star$, $x^\star y^\star zy = x^\star zy$, $(x^\bullet)^\bullet = x^\bullet$, $(x^\bullet)^2 = x^\bullet$, $(xy)^\bullet = x^\bullet y$, $x^\bullet y^\bullet x = y^\bullet x$, $x^\bullet y^\bullet z^\bullet = y^\bullet x^\bullet z^\bullet$, $xyx^\bullet z^\bullet = xyz^\bullet$, $x \leq x^\star$, $x \leq x^\star x$, $x^\star y \leq x$, $x \leq x^\bullet$, $x \leq xx^\bullet$, $xy^\bullet \leq y$.

[1] L. Henkin, J. D. Monk, A. Tarski. Cylindric algeras I, II. North-Holland, Amsterdam, 1971, 1985. (Received December 01, 2009)