1035-34-349   **Zhivko S Athanassov*** (`zhivko@math.bas.bg`), G. Bonchev Str. 8, BG Sofia 1113, Bulgaria.
Positive solutions of second-order nonlinear differential equations.

We consider the existence and the uniqueness of positive solutions of the equation $x'' + f(t, x) = 0$ on $t \geq t_0 \geq 0$ satisfying the initial condition $x(t_0) + ax'(t_0) = b$, $a \leq 0$, $b \geq 0$. Monotonicity and sublinearity conditions on f are used and the proofs are based on the application of the Lattice Fixed Point Theorem and the Schauder–Tychonov Fixed Point Theorem. (Received September 04, 2007)