Who quotes and in which publication: D.C.S.White and J. Thorson
Review - The Kinetic Of Muscle Contraction
Progress in Biophysics and Molecular Biology
Volume 27, 1973, Pages 173-255
https://www.sciencedirect.com/science/article/pii/0079610773900072?via%3Dihub
Transliteration of the Last name: De***sch***erevsk***y***
The cited work of V.I.Deshcherevsky in the list of references of the quoting article
Page 252. References
Descherevsky, V. I. (1968) Biophysica **13**, 928.
[V.I.Deshcherevsky «Dve modeli myshechnogo sokrashcheniya (Two models of muscle contraction)». Biofizika **13**, No. 5, 928-935. In Russian].

Citations:
1) ***Page 173*** (page 1 in file)
« Contents
….
VI. Theories of Contraction in Muscle 214
….
5. **Descherevsky** ' s Formulation 231
6. T.L. Hill's Analysis 232
….»

2) ***Page 215*** (page 47 in file)
«The case with actins and bridges reversed is similarly a problem. In fact, we (Thorson and White, 1969; White and Thorson, 1972) and **Descherevsky** (1968) have assigned *n* to the bridges whereas A. F. Huxley (1957) and those interpreting his formulation (Podolsky and Nolan, 1972, 1973; Julian, 1969) have counted detached and attached actins, defining corresponding rate constants for the attachment of actin to cross-bridges».

3) ***Page 221*** (page 53 in file)
«Fig. 34. Predicted time-course for the redevelopment of tension following a length step just sufficient to cause the tension to fall to zero during an isometric tetanus from Julian (1969), **Descherevsky** (1968), and on the Hill two-element model as computed by Jewell and Wilkie (1958) (top line) as discussed in § II».

4) ***Page 231-232*** (page 63-64 in file)
«Fig. 42. **Descherevsky** 's three-state model. The transitions between states B and C are caused by filament sliding, not by biochemical transitions, and are dependent upon the velocity of relative sliding.
5. **Descherevsky** ' s Formulation
Descherevsky (1968) has produced a scheme for cross-bridge activity based upon a treatment keeping count of the fraction of the cross-bridges attached. His paper gives a very clear account of the problems inherent in such a treatment.
Descherevsky made certain simplifications which lead to a three-state model, with two attached states and one detached state. Rather than treat distortion by the methods used by Huxley, Podolsky and ourselves (which require numerical computation for all but the simplest situations), Descherevsky made the transitions between his two attached states dependent only upon the velocity of sliding of the filaments. The cycle is shown in Fig. 42. A cross-bridge in state B generates +1 unit of force, and in state C generates --1 unit of force.
Descherevsky 's treatment of the effects of cross-bridge distortion purely in terms of a transition between two attached states, which depends only on cross-bridge movement results in a physically unattractive model. For example, under isometric conditions there can be no cycling

of cross-bridges and hence, on most assumptions, no ATP hydrolysis. Nonetheless, it is procedurally interesting that the steady-state force-velocity relationship yields Hill's formula; the response to a step decrease in length (shown in Fig. 34) results in a curve similar to that obtained by Julian (**Descherevsky** has a series elastic element similar to Julian's)».

5) ***Page 249*** (page 81 in file)

«SOME PROPERTIES OF THREE-STATE KINETICS

Several current analyses call attention to kinetic hypotheses in which more than two cross-bridge states (attached and detached) are involved. These include A. F. Huxley's and Simmons' (1971a, b) several states of attachment, their and Julian's (1973) demonstrations that these can describe certain mechanical events, White's and Thorson's (1972), and White's (1973) analyses of the relations of the cycle to the involvement of P_i, ATP, and ADP, as well as **Descherevsky** 's (1968) formulation of the cycle.

We ought, therefore, to outline briefly certain general properties of this class of ideas. Consider the three-state scheme of Fig. 47, which includes one illustrative back reaction. Here we shall ignore entirely the plausible properties (a) that cross-bridge distortion (a function of both "time-since-attachment" and sliding of the filaments) ought to affect both tension and certain of the rate constants, and (b) that viscoelastic properties of the sarcomere (via which the bridge cycles may in fact interact (Thorson and White, 1969) can be powerful.

Even with these drastic simplifications, justified only by the aid to intuition which can come from treating a reduced model, the three-state ease is qualitatively far more complex than the two-state one».