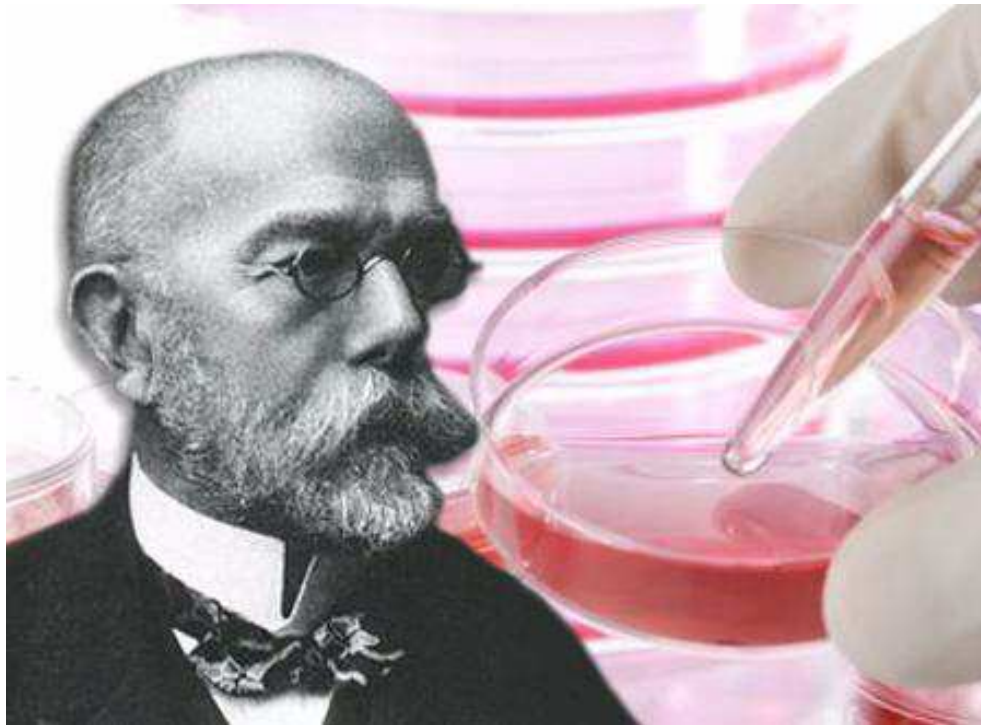


# PETRI NETS - A BIT OF HISTORY



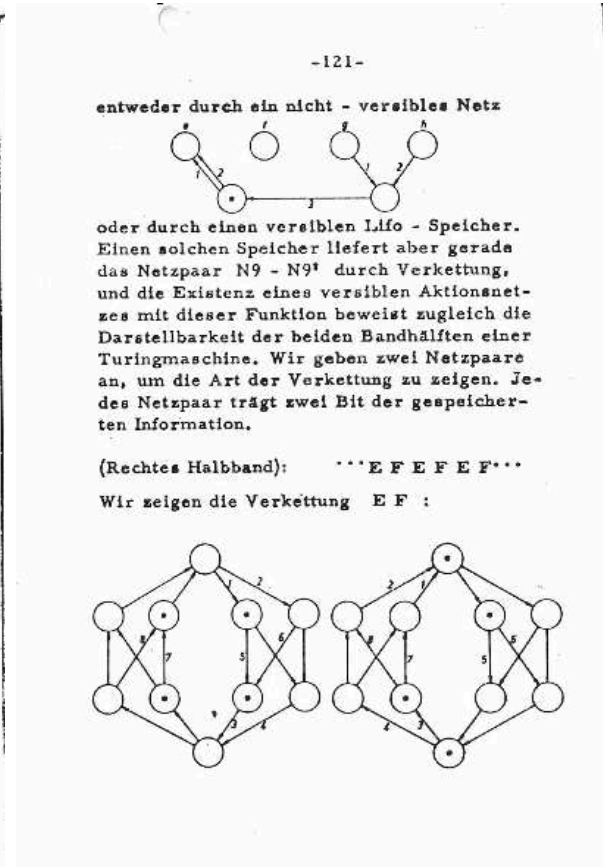
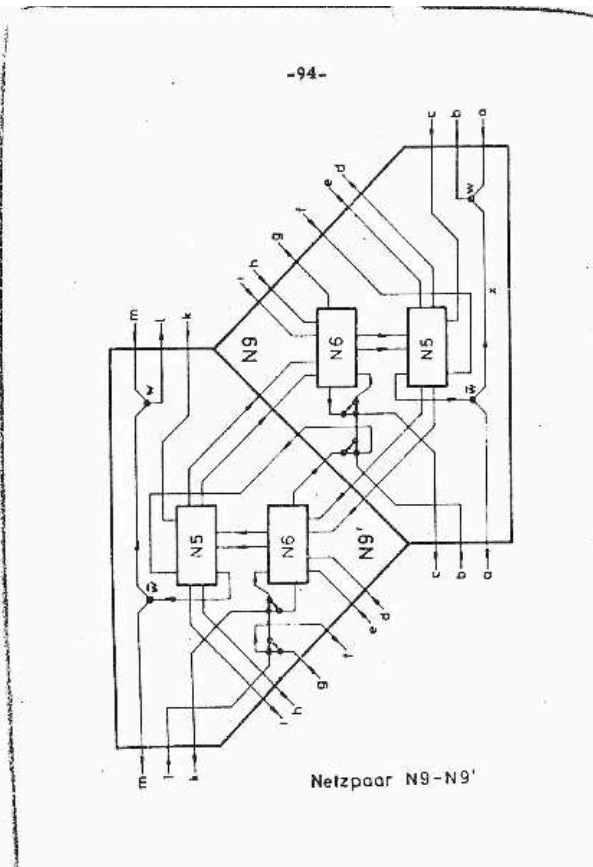
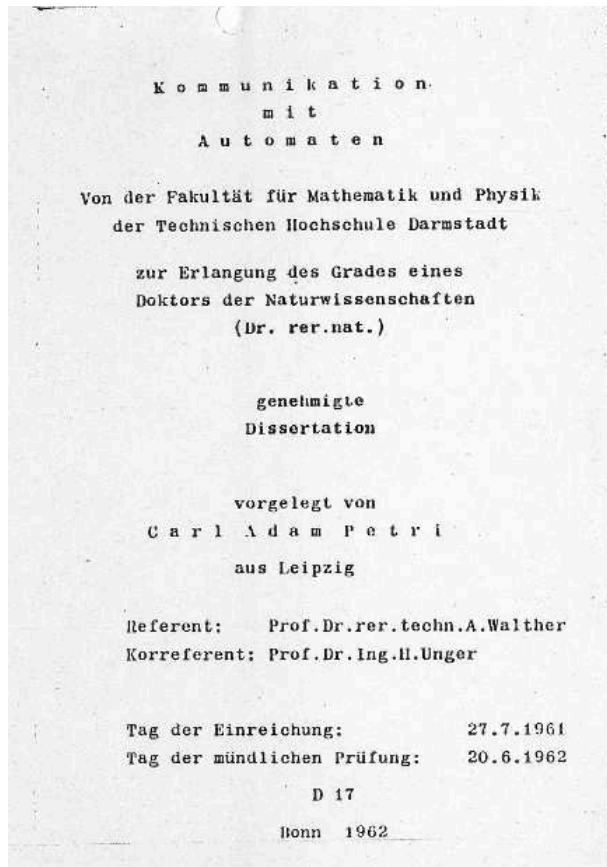
**Julius Richard Petri, 1852 - 1921**

**Carl Adam Petri, 1926 - 2010**



□ PhD „Kommunikation mit Automaten“;  
University of Technology Darmstadt, 1962

[http://edoc.sub.uni-hamburg.de/informatik/volltexte/2011/160/pdf/diss\\_petri.pdf](http://edoc.sub.uni-hamburg.de/informatik/volltexte/2011/160/pdf/diss_petri.pdf)



## □ Carl Adam Petri, GMD Bonn

*Interpretations of Net Theory; Internal Report 75-07, 2nd improved edition, 1976*

<b>places</b>	<b>transitions</b>
<b>state elements</b>	<b>transitional elements</b>
<b>conditions</b>	<b>events/facts</b>
<b>statements</b>	<b>dependencies</b>
<b>model domains</b>	<b>specifications</b>
<b>chemical compounds</b>	<b>chemical reactions</b>
<b>open one-point sets</b>	<b>closed one-point sets</b>
<b>channels</b>	<b>offices</b>
<b>languages</b>	<b>translators</b>
<b>products</b>	<b>production activities</b>





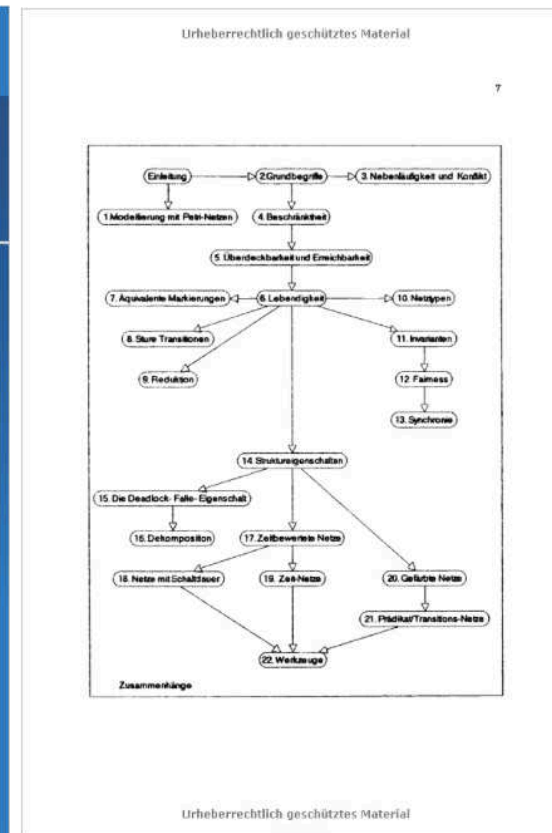
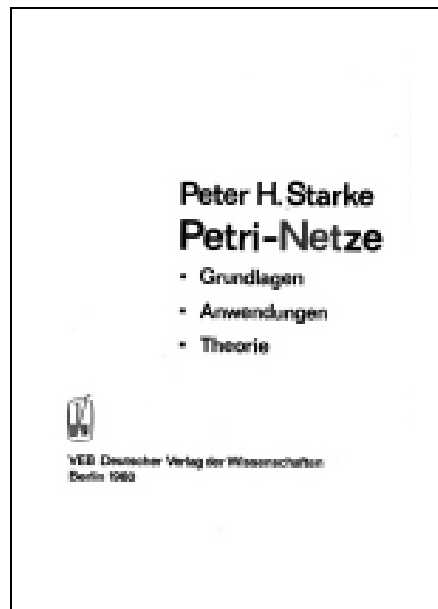


**NOVEMBER 2006**



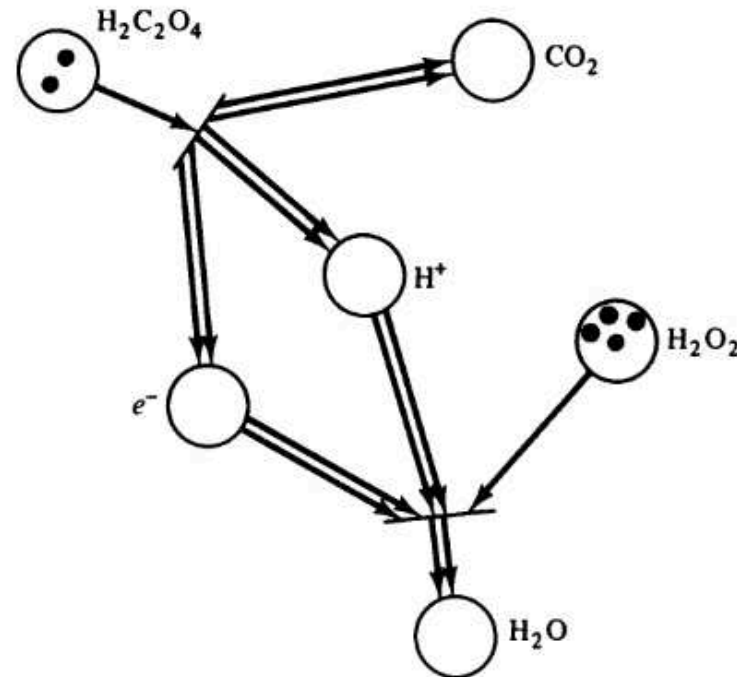
□ Peter H. Starke, Humboldt University Berlin

- > *Petri-Netze: Grundlagen, Anwendung, Theorie; Berlin, 1980*
- > *Analyse von Petri-Netz-Modellen; Stuttgart, 1990*

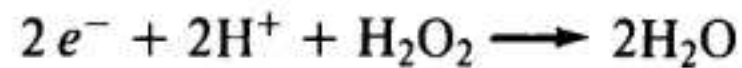


[Peterson 1981]

74 Chap. 3 Modeling with Petri Nets

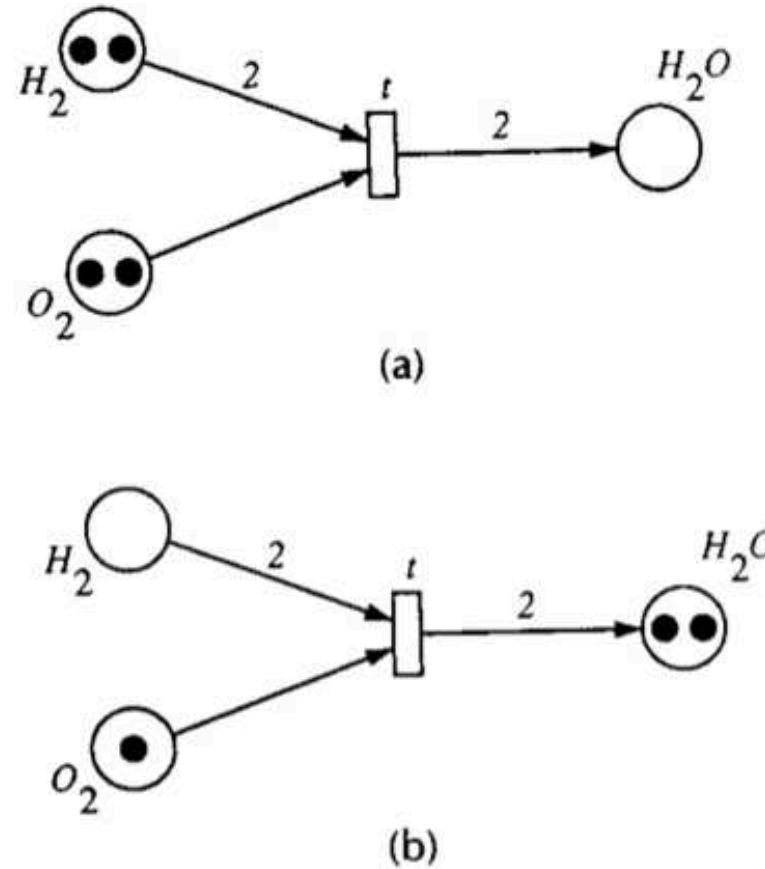


**Figure 3.38** A Petri net representing the oxidation-reduction of oxalic acid and hydrogen peroxide into carbon dioxide and water.





**[Murata 1989]**



**Fig. 1.** Example 1: An illustration of a transition (firing) rule: (a) The marking before firing the enabled transition  $t$ . (b) The marking after firing  $t$ , where  $t$  is disabled.

- ❑ **Carl Adam Petri, 1962, PhD University of Technology Darmstadt**
  - > *basic ideas introduced*
  
- ❑ **early 1970's**
  - > *first papers contributing to Petri net theory*
  
- ❑ **Petri, 1976**
  - > *application to chemical networks mentioned*
  
- ❑ **early 1980's**
  - > *first monographs on Petri net theory*
  
- ❑ **Reddy, 1993**
  - > *first paper on bio application*
  
- ❑ **late 1990's**
  - > *increasing interest for modelling and analysis of bio networks*